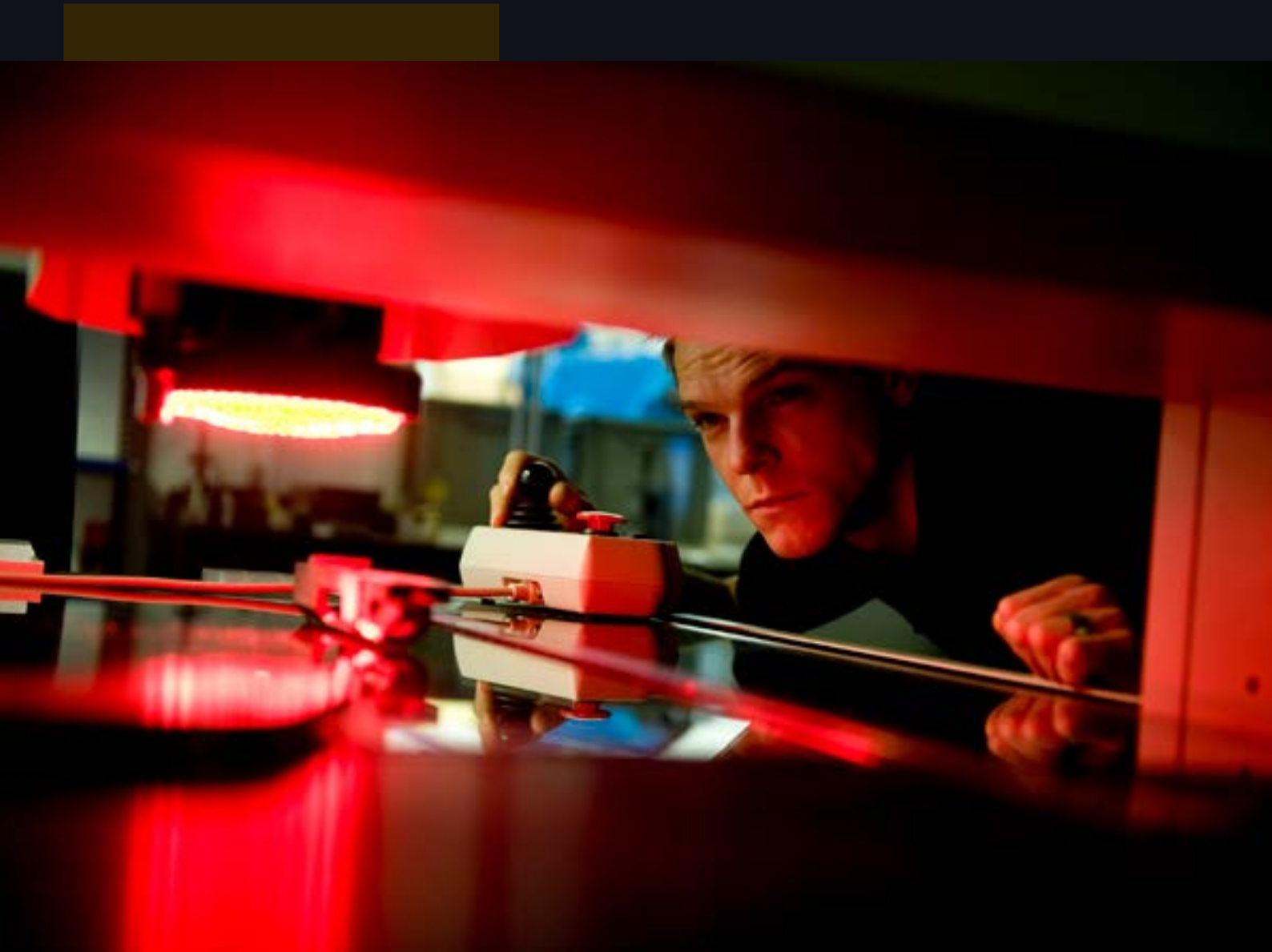


DESIDER

AN INSIDE LOOK AT DEFENCE EQUIPMENT & SUPPORT



**PROTECTING OUR NATION, OUR TERRITORIES AND OUR ALLIES
TODAY, TOMORROW, TOGETHER**

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DSEI 2023**





START Talking

Our mission as DE&S, which we deliver with our defence industry colleagues, is to equip our armed forces with the edge to protect our nation. Driving that mission includes a commitment to safety and quality; the safety of our people, our industry colleagues and the front-line personnel we serve is paramount, as is the quality of the equipment we develop, procure and maintain for them.

Our mission as DE&S, and one we cannot deliver without our defence industry colleagues, is to equip our armed forces with the edge to protect our nation. Driving that mission must include a commitment to safety and quality; to the safety of our people, our industry colleagues and the front-line personnel we serve, and to the quality of the equipment we develop, procure and maintain for them.

We're operating in a defence landscape that is rapidly changing. Our adversaries are developing new kit at a rapid pace, with a lower opinion of the value of individual human life, fewer concerns for safety and therefore a larger appetite for risk.

When faced with that, we could mindlessly choose a race to the bottom, seeking to adopt their values. Instead, we must see delivering safe, reliable, high-quality equipment and support is not incompatible with working at speed. On the contrary, if we are a learning, quality enterprise that embraces lean and digital toolsets, we will be safe, protect our people and gain strategic advantage.

In this edition of Desider, we're looking in-depth at how defence procurement does 'safety and quality'.

Stephen Wilcock, Director Engineering and Safety, opens the edition with a leader column on the "safety and quality culture" we're creating at DE&S and explaining why this is so crucial to our future success. For Stephen, our organisational excellence depends on our being an organisation where "speaking up and challenging are normalised, where we don't dilute our messages, where we speak truth to power,

and we try to see where problems are going to happen in advance and don't wait for failure before responding."

John Allan, Head of Quality, Safety and Environmental Protection, follows this up with a second leader column on the quiet hero that is 'quality'. As John puts it: "When quality is 'done right' most people don't give it, or the work that went into something working as intended, a second thought." But, as he rightly states, "our approach to quality matters" and proper quality assurance is essential to our mission, from the wings of an aircraft to a single, simple bolt.

DE&S is just one part of a far larger defence ecosystem, which includes our industry partners and allies. We can only ensure safety and assure quality by working in tandem with them.

Vince Desmond – Chartered Quality Institute CEO – responds to the emergence of Industry 4.0 technologies, like digital modelling and 3D printing, with a call for Defence for become "Quality 4.0 savvy". This means "ensuring that digital innovation delivers performance improvement at pace, while mitigating the risks of safety and performance failure."

Following that, we introduce the Land Certification Authority Team, a new programme run jointly, through the Engineering Delivery Partnership, by DE&S, the Defence Safety Authority and AtkinsRéalis. Then David Moore who gives us an insight into the DE&S Quality Assurance Field Force. They are a crucial link from DE&S into the defence industry, helping our partners meet and maintain the rigorous standards we expect of them.

Later in the edition, we pick up the topic of psychological safety, highlighted by Stephen in his column, with a story from Paul Reason, a Safety, Specialists and Assurance team leader. His personal experience with the silencing effect that happens when people feel unable to communicate their concerns with absolute candour is an important and reflective read.

So much of safety and quality is grounded in good communication and trusted partnership; with relationships built on openness and shared goals. And so I'm glad to be able to close by directing you to our piece on the new Defence Suppliers Forum (DSF) Aims and Objectives. As DSF Executive Co-Chair, I'm proud of what this agreement represents: a commitment to forge a stronger alliance between defence and industry, with more focus on availability, collaboration, early engagement and the swift development of capabilities.

SENIOR LEADER COMMENT

Enhancing our safety culture

Stephen Wilcock, Director Engineering and Safety, tells Desider about the 'safety and quality culture' that DE&S is embedding and why this is essential for our effectiveness and our armed forces.

Safety is an all-embracing culture. A way of working; how we think and the way we live our lives. It's how we protect ourselves, our families and military colleagues. When we think about our safety culture, we have to think in terms of how we behave and communicate, the relationships we develop within DE&S and, more broadly, our willingness to challenge and the expectations we bring into our work. Quality assurance sits directly alongside safety, ensuring that every piece of kit and service we provide and all processes we employ are high-quality and fit-for-purpose.

At the heart of a safety and quality culture is effective communications; something highlighted in both Clive Sheldon's review of the Ajax programme and the House of Commons Defence Committee's report into defence procurement. Sheldon looked at the dilution that happens when messages move up through and between organisations. He raises important questions about how to communicate risk and failure, how we encourage people to speak up, how we work in open, healthy partnerships through the defence enterprise, and how we make sure that actions taken by senior staff are fed back so that those at the sharp end, doing the work, understand what has been done. Those who can see the warning signs need to feel they can speak up and challenge without being ignored or undermined.

Our people's insights are essential to an effective safety culture, we need to ensure they have a voice and are listened to. As we change how we operate to create a more effective, streamlined organisation and acquisition process, we are making the most of our people's skills and experience to learn quickly and rapidly improve. We are fostering a questioning, critical analysis culture, within DE&S and across the defence enterprise, where we ask the hard questions rather than relying on process to produce the best outcomes.

As part of our new model, the defence enterprise capability gateway opens the door to working with Front-line Commands and industry partners on new capabilities earlier on, when engagement is most effective. This is a fantastic opportunity to strengthen safety, quality, environmental impact and security because it allows the thinking and challenging to happen at the right time, when we can plan for better outcomes, rather than mitigating risks later on.

It's fundamental that we embrace the diversity of skills and experiences that people have across our organisation because



every one of them has an opportunity to see a problem in a different way, which is immensely valuable. As Gender Co-Champion, I'm a huge advocate of people being able to be their true selves and bring their diversity of thought and experience to their work to provide the rich and varied perspectives needed to be really effective.

We aim to become an organisation that's focused on excellence across the One Defence enterprise. Ultimately our work is to provide capabilities to front-line personnel that are safe and effective. We are creating a culture where speaking up and challenging are normalised, where we don't dilute or worsen, where we speak truth to power, where we try to anticipate problems in advance, and when mistakes do happen we learn from them and adapt. This is a journey that we all have to contribute to if we are to reach the destination.

SENIOR LEADER COMMENT

Assuring quality, so we can ensure safety

John Allan, DE&S Head of Quality, Safety and Environmental Protection, explains why being confident in the quality of our systems and outputs is essential to achieving our mission.

Quality is something we encounter every day. We expect to book online deliveries easily, our kettle to work, and a clean reliable bus to arrive on time. When quality is 'done right' most people don't give it, or the work that went into it, a second thought. But it's often quickly apparent when something isn't right. The impact of a failure in quality can be simple frustration or something more dangerous, such as an electric shock from the kettle.

Our approach to quality matters. It impacts how efficiently and effectively we are able to deliver our outputs. Within DE&S, and the wider MOD, the scope of our quality assurance work ranges from the processes and systems that we, our partners and suppliers use to the products and services we procure and support with them. Proper quality assurance means our processes work as planned, and those products and services perform as intended and needed. Not maintaining quality can lead to increased time and costs to resolve issues and defects, and delays and performance issues that cause breaks in service and gaps in capabilities – placing our armed forces and allies at risk.

Ultimately, how well we assure quality affects the end-users of our products and services, who need to be able to rely on things performing as expected. Assuring quality helps for safe and effective acquisition.

According to the Chartered Quality Institute, the UK's professional quality body (more from their CEO later in this edition), getting quality right requires an organisation focus on governance, assurance and improvement. These provide us with a structured approach to delivering, reviewing and refining our operations. This will come to the fore as DE&S shifts to a leaner, more agile operating model, becoming a learning-focused organisation working to embed a culture of continual improvement.

Our approach to quality assurance, internally and externally, will be a key enabler of this. With the information we gather through our work, we are developing a 'heatmap' of where DE&S should concentrate its improvement activities, embedding these within updated governance arrangements, and using assurance to confirm their effectiveness.

Improving the quality assurance information we gather with, and on, our supply chain can help us make better informed decisions on supplier selection. It can also help us manage the risks



associated with particular technologies, determine which areas to measure and review with industry, and where and when to focus strategic engagement and surveillance. Ultimately, this ensures we can be confident that what we are providing to our armed forces will consistently perform.

'Quality' is a good enabler for our organisation. It has the potential to be a great enabler if we 'think quality' early enough to avoid the potential consequences of poor quality. We don't need everyone to be 'quality experts' to do this. We need to understand the basics, and know when and where to seek out advice, help and support from quality colleagues to ensure the way we work is right, we have the right balance of assurance, and we are always open to seeing potential areas for improvement and continual learning. Hopefully this edition of Desider will go some way toward improving our collective understanding, so we can be as safe as reasonably practicable, while pursuing operational excellence and continual improvement.

FEATURE

Quality 4.0: Managing quality today for performance tomorrow

Vincent Desmond, CEO at the Chartered Quality Institute, tells Desider about 'Quality 4.0' and the need for smart, digitally savvy quality assurance.

I hope you will agree that the quality of products and services, and the processes that deliver them, are an imperative for competitive business and effective public services alike. With the advent of 'Industry 4.0' technologies, such as digital simulations, the defence industry must become 'Quality 4.0' savvy; ensuring that digital innovation delivers performance improvement at pace, while mitigating the risks of safety and performance failure.

Good quality management enables businesses and organisations to avoid preventable problems and performance shortfalls by helping them plan for and assure success, and deliver greater value to their customers.

You can spot a 'quality' organisation when you observe a coherent system of work and a collaborative culture of doing the right thing, supported by good quality capability. Equally, the absence of quality is clear to see through the lens of failure. A root cause analysis of any safety disaster – think Nimrod or Grenfell Tower – will almost always point towards quality management failures, whether in governance, assurance, competence and/or culture.

Where to manage quality

Quality professionals in the defence sector do not themselves deliver quality products, services, processes or projects. The quality function is there to be the 'expert enabler', helping their organisation deliver quality outcomes. They are best utilised when they move beyond realised risk and performance issues, and begin supporting their planning and delivery colleagues, while providing insight into risk and performance through the assurance processes.

Quality 4.0

The 'Industry 4.0' digital agenda presents us with a number of questions. The first is how to manage quality digitally?

When we discuss managing quality digitally, we often see the term 'smart quality'. It has been said that the factory of the future will have only one person and one dog. The dog is there to stop the person from touching the equipment and the person is there to feed the dog. Imagine a smart quality assurance system that provides organisations with agile, real-time product development, digitalised supplier risk management, a reduced compliance burden, optimised automated controls that reduced defects, faster problem-solving and lower quality assurance costs.

And what of people and dogs? Well, greater digitalisation allows us to maximise the value of human effort, freeing it up to focus on building relationships, and designing and delivering more efficiently and effectively. With customers, suppliers and regulators intrinsically part of co-creating the system, transparency and collaboration become key to creating interoperability and mutual trust. Good data quality and governance become not only the



system's lubricant, but a strategic asset in themselves.

The next question will be how to assure the quality of digital technologies like additive manufacturing or an AI system, or the quality of the big data that underpins them. UK and international bodies are developing standards to help address this, and the Chartered Quality Institute has produced a framework for assuring digital technologies. But these are only useful if the leaders of procurement organisations and manufacturers ask: 'What are the safety and performance risks, and how can we mitigate them?'

The quality function is there to help enable quality, digital or otherwise. They are best engaged from the front-end of strategy and planning, not just in clearing up problems caused because 'somebody, anybody, everybody' did not have the system, tools or culture at the start that would have prevented things going wrong.



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FEATURE

Helping the strategic enablers help themselves

DE&S Strategic Enablers Quality Lead Elaine Adams tells Desider about her role assuring quality and why her team are there to help people help themselves.

I'm a Quality Lead in the DE&S Strategic Enablers Domain. Part of the Safety, Environmental and Quality team, I focus on quality management. My job is to provide assurance that my colleagues are consistently applying the right processes and help them identify opportunities to improve how they do their day jobs. I also support my quality management colleagues in the wider domain to help them to provide similar assurance in their areas.

DE&S Strategic Enablers works mainly with UK Strategic Command and has a very broad scope of activities. Anything that's not solely within the Army, Navy or Air Force likely sits in Strategic Enablers, from DE&S Digital to Space, special projects and logistics.

My role is all about working with people, helping them to help themselves, rather than going in with a big stick and saying, 'You're not doing it right'. I think that's where people potentially misunderstand 'Quality'. Some people think we're just going to point out what they're doing wrong, but we don't. We know that the people doing the jobs are the experts. Our job is to ask the right questions and provide the tools and guidance to help them see where they may be able to improve.

Sometimes people are so focused on what they're doing that they don't have the opportunity to take a step back and look at the bigger picture. I can help them work through the process to see that bigger picture and maybe think about something in a different way.

Rather than focusing purely on being compliant, our approach is to focus on doing the right thing. It takes more than just ticking a box to guarantee quality services and safe working. Having a process in place alone doesn't mean that the output will be fit for purpose.

You need qualified and experienced people involved in the development and delivery to ensure this. It's about having the right people in the right place producing the evidence on which to base decisions and a well-honed system in place behind them. It's about understanding the context of the business and activity in question. It's about identifying and understanding the key activities required which add value to Defence and what the required outcome is.

You shouldn't really see quality because, ideally, it's baked into the framework of the business. If we put the correct governance structures and performance measuring in place, and are looking at and learning from the outcomes, we can make sure we're delivering what is needed and doing so in a safe way. And if we strive for improvement, then we will continue to refine the service we deliver.

At the end of the day, the quality management team is trying to do itself out of a job. We want to make sure quality is built into the foundations of the organisation because we know that, if that happens, everything else will take care of itself.



FEATURE

Field Force: Driving quality at the heart of the MOD

DE&S regional team leader David Moore explains to Desider how quality assurance is driving high standards for equipment supplied to the UK's armed forces.

Since the first aircraft were used in World War One, the UK Government – through the War Office and now the MOD – has carried out quality assurance for the equipment our armed forces rely on.

Following the establishment of the MOD Procurement Executive in the 1970s, the focus shifted from quality inspectors checking components hands-on to a quality assurance approach that looks at the processes and systems which control management and production.

Today, DE&S manages the Defence Quality Assurance Field Force, a team of around 100 engineers conducting government quality assurance across a huge variety of defence projects and suppliers.

We work with suppliers ranging from small and medium-sized enterprises to multinational corporations. Our work can involve anything from Battle of Britain Memorial Flight aircraft to the state-of-the-art complex weapons currently deployed in Ukraine. Although funded by DE&S, the team also provides a service for other MOD departments, NATO partners and other allies around the world.

Our team has a diverse mix of experiences; some members are ex-military, some are long-serving civil servants and others have industrial backgrounds. This ensures we can work with industry colleagues at all levels, whether on the shop-floor or with senior managers, to drive improvements, reduce risks and verify evidence of compliance. We're always thinking of the soldier, sailor or aviator who is relying on us to deliver safe, high-quality kit.

Sometimes suppliers can be a little unsure about having an MOD representative visit, but they soon realise that a challenging question or request for evidence is in both the company's and the ministry's interests. Our teams are not there to find fault, but to seek assurance through the supplier's governance system. If we find a lack of assurance, then we help improvements to be made. So ultimately, it's win-win.

Over the years government quality representatives have come to occupy a unique position in the acquisition process. Sometimes they are the longest-serving members of delivery project teams, as they remain in post when projects transition from design and development to manufacture, in-service work and even disposal. This, as well as working on multiple projects across domains, means a wealth of learning can be built up, which allows them to identify and analyse cross-cutting risks. Most projects aren't



perfect and there is always something new to learn, and there is no better team to learn from than a government quality assurance team.

As my colleague Peter Lee, a head of Field Force section in London, says: "Being part of the Field Force means we can get fully behind the scenes and understand how these things are built."

The real joy of the job is working alongside such a wide variety of suppliers, military hardware and technology. We're always learning, seeking assurance and driving improvement. Our military colleagues put themselves at risk every day and it's a privilege to play a part in helping deliver the best equipment we can to them.

FEATURE

No room for assumption: Counterfeit avoidance in defence equipment

UK defence supply chains are at real risk from counterfeit materials. Fortunately, DE&S and its defence partners know how to respond.

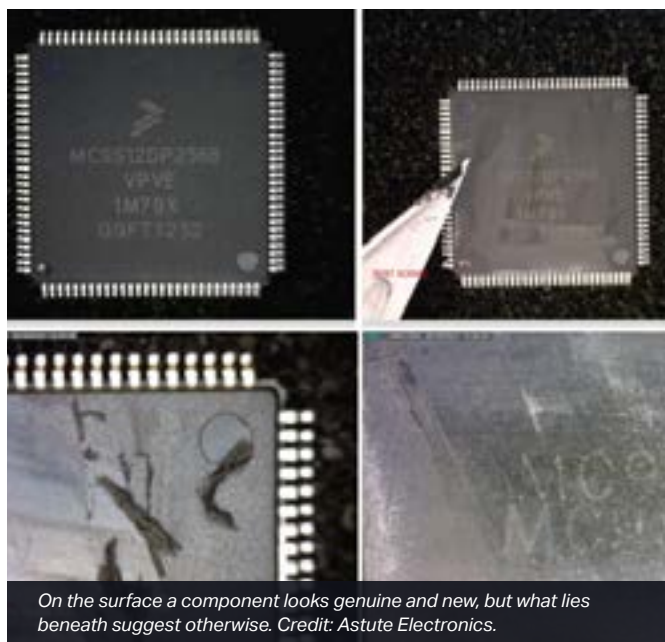
When manufacturers of electronic devices scrap their old printing machines, criminal organisations are able to buy them and set up re-printing factories to make old mobile phone semiconductors look like highly valuable brand-new components for re-sale. With lead times for electronic devices running into years and the availability of raw materials impacted by events like the war in Ukraine, the market demand presents an opportunity for criminals to cash in.

Examples like this are why the risk of counterfeit parts within defence acquisition must be constantly reviewed at all levels. In 2011, an MOD study captured the very real danger of counterfeit material entering the defence supply chain. Defence equipment is significantly different to nearly every other industry, as it must operate in environments where it is under attack and its users, the armed forces, face life-threatening situations. Their safety could be severely compromised if counterfeit, sub-standard parts were to enter the supply chain and end up in their equipment.

When considering engineering materials and electronic devices, it is virtually impossible to spot the difference between equipment that is genuine and counterfeit without specialist skills and kit. As products become increasingly difficult to source, criminal organisations will exploit opportunities to tap into highly competitive global markets.

Specialist organisations have the inside knowledge and ability to validate components, whether that is using an electron microscope to spot suspicious signs, or a materials laboratory testing the chemical composition of aerospace material. But to reduce the risks to as low as reasonably practicable, Defence is addressing the threat of counterfeit material through avoidance management, rather than just detection.

In 2012, DE&S established the Counterfeit Avoidance Working Group, which includes industry leaders and defence suppliers, to identify the current risks and develop policies, requirements and tools to protect our programmes and armed forces personnel. A focus for the group has been organisational policy, training, and the need for clear roles and responsibilities. Personnel throughout the supply chain are the first line of defence against counterfeit items, and DE&S must be confident that they understand the duty being placed on them.



Recognising the risk of forged certification, DE&S has supported the creation of a comprehensive accreditation system that enables certificates to be validated back to certification bodies, all of whom are regulated by the national accreditation body, UKAS (United Kingdom Accreditation Service).

There is no room for assumptions in defence equipment. Building in safety and quality is fundamental to defence equipment; you cannot 'inspect it in' afterwards. MOD quality practitioners will look at material composition, in-process inspections, build records and test evidence of any new system or capability. Rather than just relying on records alone, they will examine the processes in use, the production equipment, staff competences and the equipment configuration, all to assure that it will be safe to use and produce high-quality outputs. A key part of that is verifying that the supplier has a mature approach to counterfeit avoidance.

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FEATURE

"Creating a culture of psychological safety"

Paul Reason, Safety, Specialists and Assurance team leader, recounts his experiences and tells Desider about the importance of psychological safety.

In a previous role I was a Senior Safety Responsible delegation holder for a highly complex defence programme. I had a good relationship with my Executive Safety Responsible (ESR) who had assigned me the role. He was a very approachable character and we used to have regular catch-ups. He had created an environment where I felt I could approach him with any safety issues.

However, resource was a challenge and my small team wasn't able to cope with the amount of safety related work coming from the broad scope of platforms we were responsible for. My solution was to reduce the scope of responsibility and prioritise the newest platforms within the fleet, one of which had recently entered service and was facing some significant challenges. I went to my ESR, explained the problem and, importantly, my proposed solution. After he thanked me for coming up with a solution, which he endorsed, he went on to say, "I was hoping you weren't just coming to have a whinge about a lack of resources."

The conversation has stuck in my mind ever since. At the time I felt pleased and appreciated. He wanted me to find a solution, which was a reasonable expectation. But looking back at this throw-away comment, especially now in light of Clive Sheldon's report earlier this year on the Ajax programme, did it actually

reinforce the perception that I couldn't go to him with a problem if I hadn't found a solution first?

Sheldon's report makes it clear: we are talking about the institutional behaviours of the organisation and Defence as a whole. It's not about people covering up issues; it's about people feeling they have to find the solutions to the problem before raising a hand. Sometimes those solutions may be beyond them and actually do need to be escalated. It can be difficult to find the balance between not running to senior management with every problem and actually raising issues that need to be seen and responded to.

I'm now team leader for safety policy and training, and, with my team, I'm introducing a new competence within the System Safety framework that is linked to psychological safety. This describes "promoting a strong team culture including an open/challenging safety reporting culture to ensure safety concerns are exposed." It goes on to state that staff with a safety delegation should "listen actively and respond appropriately to system safety concerns".

Organisations have to actively encourage the exposure of issues, whether there is a solution or not. We must focus on creating a culture of psychological safety, where people feel they can speak up, raise concerns and challenge decisions without



it being detrimental to them, and senior management actively encourage these conversations. I am pleased to see such a commitment to creating a psychologically safe workplace at DE&S – one where all of us feel empowered to raise concerns at the earliest opportunity.

I hope this article will give people the confidence to speak up and challenge behaviours that don't seem right. I feel that "actively listens and responds appropriately" is a behaviour that we should all consider.

FEATURE

New chemical sensing equipment to protect UK Armed Forces

UK Armed Forces personnel will soon be better protected on the battlefield thanks to world-leading chemical detection sensors, under to a new contract placed by DE&S.

FEATURE

Under an £88 million contract placed by DE&S, UK company Smiths Detection will develop next-generation chemical sensor products for the MOD, to be operational by 2028. Sponsored by Strategic Command, with a pan-defence delivery team, thousands of personnel across the British Army, Royal Navy and Royal Air Force will benefit from the chemical agent sensors.

There will be three sensor formats: a wearable personal sensor, which continually monitors the environment around the user; a portable survey sensor to check potentially hazardous areas or surfaces; and an enhanced remote monitoring sensor for use in fixed locations.

A first of its kind for UK Armed Forces, the chemical agent sensors will be able to detect dozens of different toxic chemical threats, in both vapour and aerosol form, ensuring personnel can take immediate action to protect themselves and others. As new hazards emerge in the future, the equipment can be continually updated

and improved, providing a greater range of chemical threat coverage.

The contract, placed by the DE&S Chemical, Biological, Radiological and Nuclear (CBRN) delivery team, will encompass the development, manufacture and initial in-service support for the programme. CBRN team leader Tim Illing said: "It has been a pleasure working alongside our partners from within the MOD and from industry to ensure personnel from across the UK Armed Forces will have access to this essential world-leading capability."

The contract supports hundreds of skilled people at Smiths Detection and creates around a dozen new jobs at their Hemel Hempstead site. The company sources components and services from numerous UK suppliers, bolstering the UK manufacturing industry, and injecting new investment into British production capability.

Smiths Detection President Roland Carter said: "We're honoured to have

been selected by the MOD to supply this next-generation technology. This award is testament to our leading technology, and the knowledge, commitment and ingenuity of the people in our organisation who everyday help to make the world a safer place."

Pulling through advances in science and technology, supported by the Defence Science and Technology Laboratory, the Bosker programme will replace the UK's existing chemical detecting capabilities.

Minister for Defence Procurement James Cartlidge said: "It's vital we protect our service personnel, and this cutting-edge technology is so important to reduce the threat posed by toxic chemicals across a range of environments globally. Not only is it an impressive piece of equipment designed and manufactured here in the UK, but the ability for it to be continually developed and improved is exactly how we want Defence procurement to be – deliverable, effective and ambitious."

FEATURE

Ensuring the safety of future land vehicles

A new land vehicle certification team will focus on safety standards

For several years there have been discussions across Defence that improved standards were needed to demonstrate that vehicles were being tested and approved at the right level before being released for active service.

As a result of a series of incidents involving vehicle safety, a Land Safety Enterprise Study concluded that an independent certification process should be set up, similar to those already in place in the Maritime and Air Domains.

Over the past 16 months, the Land Certification Authority Team (LCAT) programme, which includes DE&S, the Defence Safety Authority and AtkinsRéalis, as part of Aurora and the Engineering Delivery Partnership, has been working hard to make this a reality.

During the first phase, which completed in April 2023, the programme designed the certification process, and drew up proposed safety standards that future vehicles would need to be tested against. This included developing 10 key areas of the Land Systems Certification Defence Standard: vehicle rollover; vehicle noise; vehicle vibration; vehicle radiation hazard; vehicle integration; vehicle fire and explosion; vehicle system structural strength; vehicle collision; vehicle struck, runover or crush; and autonomous technology.

The new land systems certification standard will increase the level of rigour placed on any new vehicle procurement, which will need to provide robust evidence to support the delivery of the safest possible solution.

Daryl Stevenson, Internal Technical Support – Safety and Environment team leader, said: “The LCAT will provide the standards, challenge and support to industry, DE&S and the Front-line Commands for them to understand, ask for and deliver the safest and best possible solution for the capabilities of the future.”

Phase 2 is currently underway and will see these standards and processes piloted with five vehicles, including Ajax, Foxhound and

Challenger 3, to test and refine the process. Once the pilots are complete and the tools and processes finalised, it is hoped that the new certification programme will help meet some of the recommendations raised in Clive Sheldon KC’s report on the Ajax programme.

When this phase draws to a close in February 2024, proportionate land systems certification will become a regulatory requirement in the Defence Land Safety Regulations and will be applied to vehicles procured by DE&S and the Front-line Commands.

The DE&S Head of Engineering Assurance Land will be chartered by the Defence Land Safety Regulator to lead the LCAT, which will sit outside of the pressures of specific procurement programmes. By creating an independent view of safety, and an external route of escalation for any individual or agency to raise safety concerns. The land systems certification and the new regulation provided by the LCAT will ensure good practice requirements are met and a safer future is delivered.

David Pinkstone, Head of Business Development, Land and Weapons at AtkinsRéalis, said: “We are so proud to be part of this important journey in delivering a transformational change in the safety regulation of land platforms. Our soldiers can be confident that, in the future, the vehicles they operate meet specific and rigorous safety standards.”





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HENSOLDT – Innovations for a safer world

NEWS

Government and defence industry commit to increasing UK defence enterprise collaboration



Through the Defence Suppliers Forum, the UK Government and its industry partners have committed to a set of ambitious aims and objectives to strengthen the defence enterprise.

Senior leaders from the Defence Suppliers Forum (DSF), including DE&S CEO Andy Start, have committed to a new shared agreement between the UK Government and the UK industry to strengthen the defence enterprise.

DSF – the UK's primary mechanism for MOD and industry engagement – developed the Executive Group Aims and Objectives in response to a call in the recent Defence Command Paper Refresh for a new alliance between defence and industry.

With a focus on greater availability, more collaboration, early engagement and the swift development of capability, the Aims and Objectives align all parts of the defence enterprise to the shared mission of protecting the nation and helping it prosper.

Andy Start, DE&S CEO and DSF Executive Group Co-Chair, said: "As the latest Defence Command Paper Refresh sets out, we need an even stronger partnership between government and industry to meet today's threats.

Delivering on this agreement will make sure we get the right kit into the hands of the armed forces at the right time."

To mark the launch of the Aims and Objectives, a signing ceremony took place at Defence and Security Equipment International (DSEI) on board HMS Iron Duke, with more than a hundred graduates and apprentices from across the UK defence enterprise.

"We were delighted to be joined by so many talented apprentices and graduates representing the defence enterprise's next generation," said Andy Start. "We are all committed to ensuring that we continue to help deliver world class capability and support to the UK Armed Forces and ensure the UK's security and prosperity."

DSF will deliver an ambitious programme of activity to address the most pressing issues facing Defence, many of which it aims to achieve by 2025. Its targets include a commitment to halve the time it takes to contract for new defence equipment and improve the availability of defence assets and services by 50

percent. Further targets aim to incentivise the UK defence industry to greatly increase acquisition and industrial productivity by developing new commercial and technical mechanisms, and to increase the attractiveness of the UK defence sector as an investment proposition.

Following the signing event, John Howie, Chief Corporate Affairs Officer at Babcock International Group and DSF Executive Group Co-Chair, said: "The commitment to deliver on these aims and objectives clearly shows that government and industry are taking an increasingly collaborative, enterprise approach to secure the capability and capacity required by our armed forces and further strengthen our sovereign UK defence industry. Delivering against these key aims will help to guarantee the security of the UK and increase productivity and prosperity for the long term, so it was fitting that we were joined by so many early careers colleagues, as they will continue to deliver against these aims long into the future."

NEWS

News in Brief

300 further XACT night-vision goggles delivered to the Army

The XACT nv33 night-vision goggles first went into service in 2021 with several units, including the new Ranger Regiment, 16 Air Assault Brigade and the RAF Regiment. Since then, strongly positive feedback has generated orders for more. They are manufactured by Instro, the UK subsidiary of international technology company Elbit Systems and have been delivered by the Dismounted Close Combat Portfolio, part of the Land Equipment Soldier, Training and Special Projects team at DE&S.

The helmet-mounted goggles have extended battery life, and improved size, weight and image quality. This offers troops a greater ability to identify targets and threats in low-light conditions at a tactical level, maximising their mission efficiency in both dismounted and mounted roles.

Considering international demand for the nv33, this order reinforces Elbit Systems' commitment to supporting both the UK Armed Forces and its allies around the world. The XACT nv33 is already in operational use with a number of NATO countries.

Soldier, Training and Special Projects team leader Nick Taylor said: "This is an excellent example of collaboration between our delivery team, the Army and industry to supply cutting-edge equipment to the Armed Forces."



NIBS

DE&S' support for Ukraine earns shortlist place at Supply Chain Excellence Awards



DE&S has been shortlisted for this year's Supply Chain Excellence Awards for its work supporting Ukraine, alongside industry partner Team Leidos.

Following Russia's invasion of Ukraine, the DE&S Commissioning and Managing Organisation (CMO), which manages the Logistics, Commodities and Services Transformation (LCST) contract with Team Leidos, reacted with agility and ingenuity to procure vital commodities for Ukraine. These included over 345,000 items of medical supplies, more than 73,000 operational ration packs and over 20,000 sets of cold weather clothing. By using an expanded supplier base and commercial off-the-shelf products, Team Leidos was able to source these items at a pace and scale not previously seen.

Within three weeks of the start of the conflict, a cross-European transportation network had been set up to move equipment, ammunition, vehicles and spares worth hundreds of millions of pounds from UK and NATO partner nations to Eastern Europe.

The awards, now in their 26th year, have become the benchmark for supply chain best practice, attracting entries from across the UK and Europe.

Brigadier Anna Luedicke CBE, Head of CMO, said: "I am very proud that the CMO and Team Leidos have been shortlisted for the Public Sector Supply Chain Excellence Award. The LCST programme has provided critical logistics services in support of Ukraine since March 2022. The collaboration shown by our partnership has been fundamental to the success and pace of delivery."

NEWS

Achieving the Integrated Force at DSEI 2023

DE&S took centre stage at DSEI 2023, where this year's theme was 'Achieving the Integrated Force'.

Defence and Security Equipment International (DSEI) is a key event in the global defence and security calendar, bringing defence experts together from the UK and around the world. This year DE&S played an impressive role in the DSEI agenda with a number of keynote speeches, panel appearances and, for the first time, an exhibition stand in London's sprawling ExCel Centre.

Speaking after the event, DE&S CEO Andy Start said: "This year's DSEI was a major milestone for DE&S and one I am particularly proud of. We launched our strategy externally, outlining how DE&S will protect our nation and help it prosper, and how we make sure that our armed forces have the edge to be able to deter our adversaries. We know we cannot do this in isolation and that is why we underpin our mission with a strategy that is very simple, summarised by 'Today, tomorrow, together'.

Putting this into practice, we were able to meet with key people from right across defence and we played a prolific part in the DSEI agenda with panel appearances and speaking opportunities. Our people spoke passionately about the work we do, and the equipment and support we put into the hands of our service personnel."

The range of panel sessions at DSEI was vast. DE&S experts spoke about key defence activities and engaged in conversations on how the integrated force needs to work together to tackle the challenges facing the UK and its allies.

Sue Snowball from the DE&S Entry Talent Centre of Expertise said: "I had the opportunity to speak at DSEI alongside five of our exceptionally talented graduates and apprentices. As they recounted their unique experiences at DE&S, it was a great opportunity for us to demonstrate our ability to give early career professionals the skills and experiences they need to

succeed. They're the force of tomorrow, but today is where we help them get ahead."

Meanwhile, DE&S' exhibition stand gave over 1,500 visitors interested in DE&S a focal point for them to meet specialists in all aspects of defence acquisition and to watch demonstrations on cyber security, supply chain management and key capabilities.

James Gavin, Head of the Future Capability Group, said: "At DSEI, we had many conversations about the need to innovate and the speed required to stay one step ahead. It's crucial that we form strong collaborative relationships with others in the MOD. We have agile frameworks with suppliers from across industry who work with us to bring our latest thinking to life and DSEI helps us do that. I am really pleased with what we were able to achieve at DSEI 2023 and am already looking forward to DSEI 2025."





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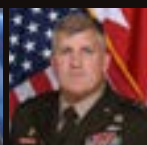
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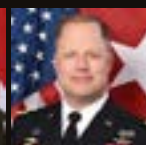
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DESIDER

Desider is the monthly corporate magazine for DE&S. It is aimed at readers across the wider MOD, armed forces and defence industry. It covers the work of people at DE&S and its partners, and other corporate news and information.

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NEWS



DE&S invests in cutting-edge fighter jet helmet

DE&S has invested £40 million with the intention of developing a cutting-edge fighter jet helmet for Typhoon pilots.

Striker II is considered one of the world's most advanced helmets. It displays all mission-critical data in colour on a pilot's visor for enhanced situational awareness.

The helmet will provide pilots with an all-digital night vision system, reduced noise and greater comfort. It can be upgraded to meet new battlespace demands, all critical in what can be a highly complex and pressurised environment.

Under the £40 million contract with BAE Systems, specialist engineers are developing the helmet's capabilities to produce a set of assets that will be tested at the company's combat air site in Warton, Lancashire.

DE&S Typhoon delivery team head Lyndon Hoyle said: "The clear presentation of information to the pilot in the cockpit is critical to mission success in complex, high-pressure situations. This

investment represents a significant step towards maintaining the RAF Typhoon's operational cutting-edge into the future."

The helmet would further enhance ongoing upgrades to Typhoon, including the provision of the world-class ECRS Mk2 radar, to ensure the aircraft can continue its critical role in providing round-the-clock defence and security.

Air Commodore Nick Lowe, Assistant Chief of Staff Combat Air in the RAF, said: "This contract demonstrates the maturity and progress of the initial design solution for Striker II. It not only meets the UK's safety requirements by offering high levels of protection and survivability, it also expands the situational awareness of the pilot and increases Typhoon's lethality. It is a major evolution of Striker, while using the existing interfaces with the aircraft, which reduces both risk and cost for future integration."

Air Vice-Marshal Phil Brooker, DE&S Director Combat Air, said: "Striker II is a cutting-edge programme supporting more than 200 highly skilled roles at Warton and at the BAE Systems' site in Kent where the helmet will be manufactured, as well as further specialised roles in the UK supply chain. We look forward to continuing to work closely with our partners to ensure we identify and provide the RAF warfighter with the edge to protect the nation."

Typhoon is an extremely agile, multi-role combat aircraft used in all the RAF's current operations. It can be deployed across the full spectrum of air operations, including air policing, peace support and high-intensity conflict. The jets are available to respond to threats at a moment's notice to defend UK airspace. In total, the Eurofighter Typhoon programme sustains more than 20,800 jobs across the UK.

NEWS

DE&S secures high-precision rifles for Army

UK troops will become more lethal on the battlefield thanks to a new contract delivering high-precision rifles by DE&S under Project Hunter.

The Alternative Individual Weapon (AIW) system – known as the L403A1 – has been procured up to a total value of £90 million by DE&S under Project Hunter.

AIW uses the latest in design technology and manufacturing methods to produce an exceptionally reliable and accurate weapon. The magnified optical sight means the user can target threats from greater distances, while the muzzle signature reduction system masks the rifle from visual and audible detection.

Supplementing the current in-service L85A3, the AIW system will initially be supplied to the Army Special Operations Brigade (ASOB) who operate in complex, high-threat environments.

It has been secured under a contract awarded by the DE&S Soldier, Training & Special Projects team to Macclesfield-based company Edgar Brothers, sustaining around 50 jobs at the family-owned firm.

Colonel Paul Cummings, DE&S' Dismounted Close Combat (DCC) portfolio leader, said: "Project Hunter has been a fabulous example of close collaboration with the user community and strong engagement with industry to deliver game-changing capability at pace.

"This is another example of the enormous commitment of the men and women in DCC to deliver battle-winning capability into the hands of the user and I'm enormously proud of what they have achieved. We look forward to continuing to work closely with Edgar Brothers as we move into the production phase."

An initial £15 million order for 1,620 AIW systems has been placed, with options to procure up to 10,000 – totalling £90 million – over the next decade.

The L403A1 is an evolution of the ArmaLite Rifle (AR). As an AR system, it shares much in common with the rifle systems used by many of the UK's allies. Given their specialist role, and the critical task of working with and alongside the UK's allies, the platform will enable ASOB to share skills and drills in an efficient manner.

Lieutenant Colonel Gareth Davies, Military Capability Delivery in Army HQ, said: "It offers a marked increase in lethality, and the system includes one of most capable day sights currently available. Importantly, the weapon system will be further enhanced by our newest generation of night optics, with which the ASOB are already equipped."

As a key component of the ASOB, the Ranger Regiment will receive the AIW later this year. Made up of four battalions, the Rangers deployed to more than 60 countries in their first year of operation, following their formation as part of Future Soldier, the army's long-term modernisation programme. DE&S is supporting Future Soldier by providing the Army with upgraded kit and the latest technology, such as this new rifle.

Minister for Defence Procurement James Cartlidge said: "This is another example of how we are committed to investing in the most advanced battlefield equipment to back our troops on the battlefield."



PEOPLE

Katie Haase

Job title:

Safety engineer in the Future Capability Group (FCG)

What does your role involve?

FCG specialises in trials and experimentation of novel, disruptive, complex and cross-cutting technology. As a safety engineer, I work closely with our project teams to provide safety-specific support and guidance to every aspect of the project timeline, from writing safety documentation, including reports and plans, to hosting working groups and panels. I also work to continuously improve FCG safety processes and complete assurance activities.

What do you most enjoy about your job?

I love the fast-paced nature of the work. Every day brings a different challenge involving a new system, and projects can go from pre-concept to disposal in a matter of months. I enjoy working closely with our armed forces on trials and demonstrations, and my role is pan-domain, so I get to be involved with Navy, Army and Air Force projects.

What is your greatest accomplishment to date?

In my short career I'm proud that I have been able to get involved with a lot of exciting projects. I received an International Women in Engineering Day Award in May 2023 for my safety engineering work in FCG. I have been a STEM Ambassador since I was a student and I have always made time for STEM outreach work.

What keeps you energised about working at DE&S?

I believe that the flexible hours and hybrid working offered here makes me more effective and efficient with my work, as I'm in a comfortable work environment and I can work around my other life commitments and volunteering. I'm grateful for the career development support provided to me through mentorship and training.

Who or what has shaped who you are?

I have had many great role models in my life, but my family has had the biggest influence on my career journey. When I've questioned my abilities or been nervous to go outside of my comfort zone, they have always provided positive encouragement and support. They believe that if I put 100 percent effort into something and still fail, I cannot be disappointed in myself.

What do you enjoy doing in your spare time?

Netball takes up a lot of my spare time. I'm the captain of a Bristol netball team, which involves attending training, friendlies and weekly league matches, and all the organisation and admin that comes with it. It's a lovely community and a great way to disconnect from work.

What might surprise people about you?

This won't be a surprise to my team, but I'm an avid cyclist who enjoys commuting by bicycle and long cycle rides with a Bristol club in the beautiful hillsides that surround the city. When I'm not cycling, I enjoy tinkering with my bicycle before the next ride.

What's the best advice you've ever been given?

If you never try, then you'll never know.





EDITOR'S CHOICE

A long exposure image of a US Air Force CV-22B Osprey practicing night take-offs and landings on the flight deck of HMS Queen Elizabeth.

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