

DESIDER

AN INSIDE LOOK INTO LIFE AT DEFENCE EQUIPMENT & SUPPORT



ACCELERATING DIGITAL SOLUTIONS

Proudly delivering for the UK's Armed Forces

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Foreword

BY ADRIAN BAGULEY

DE&S INTERIM CEO + DIRECTOR STRATEGIC ENABLERS



Taking up the role of interim CEO this month was a tremendous personal and professional honour having spent over 35 years of my professional career in the Ministry of Defence delivering to our Armed Forces. I am deeply proud of how DE&S continues to deliver a vast array of equipment and support outputs, to underpin national and global security. These range from the most complex capabilities such as the two aircraft carriers, to ration packs that feed deployed service men and women. In total we provide and support over half a billion different items. The agility and professional capability that our people showed when we supported the NHS during the Covid-19 pandemic has yet again been demonstrated in our response to the current conflict in Ukraine. From readying munitions in the Defence Munition Depots to accelerating experimental capabilities into service, our people consistently show that when they

are called upon to respond to a crisis they can, and will, do extraordinary things. In the face of these urgent operational demands, our organisation continues to deliver against its complex portfolio of activity. The collaborative way we work with industry and partners, and our professional and flexible approach to delivery, continues to strengthen the relationships we have with our clients and international allies. This is a critical success factor in our mission to ensuring that the UK's Armed Forces are equipped for operations with the very best equipment and support, now and into the future. This edition of Desider once again seeks to showcase how we are delivering against that mission. July was a typically busy month for DE&S with some high-profile announcements at the RIAT and Farnborough air shows that highlight how we are accelerating the development of new capabilities and investing in new technology and

equipment. Head to page 8 to find out about the £2.5-billion upgrade that will see Typhoon fighter jets fitted with the world's most advanced air combat radar. Or over to page 16 to learn more about a £60-million contract to develop an uncrewed rotary air platform demonstrator. This edition also highlights some of the steps we are taking within DE&S to drive improvement across the organisation, featuring the launch of the DE&S 2022-2025 Corporate Plan. The Plan builds upon our DE&S 2025 Strategy and sets out the activities that we will focus on over the next three years to support implementation of the Government's Integrated Review of defence and security. Pages 18 to 22 detail our priorities for the year ahead such as launching our Safety Strategy, continuing to drive digital solutions, building and strengthening our existing partnerships, offering the best value for money and delivering on our people strategy. Finally, I trust this edition of Desider provides you with some insight on the exciting opportunities that lie ahead. It's been said before, but I will say it again, it really is the people that are at the heart of our delivery. By keeping our promises, embracing innovation and technology, removing bureaucracy, and investing in our people, we are going to ensure we are ready to seize these opportunities to continue to deliver on our critical mission. We must never be complacent, and we must continue to strive to be better in everything we do so that we can play our part in ensuring that the UK has integrated and effective Armed Forces that can protect us all for decades to come.

SENIOR LEADER COMMENT

Richard Medland DE&S Head of Security

speaks to Desider about how the cyber threat is evolving and what this means for defence, and our suppliers.

The 2022 MOD Cyber Resilience Strategy outlines the MOD's vision to build a stronger, cyber-resilient Defence. It highlights that the risk of cyber-attack is among the highest risks that are managed by the Defence Board and reinforces that the MOD requires a collective response to address it. The Defence community has made significant progress in the area of cyber defence in recent years. However, with an ever-increasing reliance on technology, there remains a significant gap between our current cyber resilience capabilities and where it needs to be.

The UK National Cyber Security Centre (NCSC) provides expert analysis of the threat, and notes that this threat continues to grow and evolve. This is in terms of both indiscriminate, and targeted attacks against critical national infrastructure, in industry and government, that can lead to real-world impact. Looking at hostile state action, the focus remains on China and Russia as the 'most consistent' threat. While current attention focuses on Russia following the invasion of Ukraine, the NCSC believes that how China evolves over the next decade will probably be the single biggest driver of the UK's future cyber security.

We are resetting our relationships with industry to work even closer in delivering wider defence security. This is in order to: strengthen the supply chain, protect Defence information residing in industry, and to unite on the Secure by Design principles to deliver cyber resilient Defence equipment.

Key to that aim, is the joint Defence industry and MOD Defence Cyber Protection Partnership (DCPP). This partnership embeds security controls within contractual agreements that are based around the National Cyber Security Centre's (NCSC) Cyber Essentials scheme. The scheme sets out what is required by those involved and defines MOD Identifiable Information, which the Cyber Security Model aims to protect.



This month, ownership of the Defence Industry Warning and Reporting Point (Def Ind WARP) has transferred from the Joint Security Coordination Centre (JSyCC), over to DE&S. It will become another service delivered as part of the Industry Security Assurance Centre (ISAC) – that is managed by the DE&S Principal Security Advisor.

The Def Ind WARP is the primary point of contact for Defence Contractors and their Sub-Contractors to report and seek advice on security incidents relating to MOD information, assets, personnel, physical and cyber security. It is responsible for coordinating the investigation into any incidents, ensuring that lessons are learned and that mitigations are implemented. This change doesn't affect how incidents are reported or investigated, but the location of the team has moved.

This move is part of a wider restructuring of several departments in MOD. As part of this restructuring, it became clear that the best place for the Def Ind WARP to sit was within the ISAC (as the new Government centre of excellence for industry security) – where the management and assurance of industry security e.g. Facility Security Clearance (FSC) and Industry Personnel Security Assurance (IPSA) already takes place.

Working in close partnership with our allies in the wider defence industry will ensure our approach remains resilient as well as helping defence continue to deliver its purpose in supporting the national effort of strengthening the UK in the cyber domain.

FEATURE

Artificial Intelligence and DE&S – mapping the future

DE&S has published its roadmap of the future of Artificial Intelligence, following the publication of the MOD Artificial Intelligence (AI) Strategy.

Artificial Intelligence (AI) is a collective term for computer-based capabilities that can perform tasks or make decisions without human intervention. AI can be deployed to assist human decision-making, or can operate autonomously to undertake activities that a human would be otherwise unable to do.

AI has demonstrated the potential to outperform human actions in certain situations and environments, overcoming constraints that have typically set the limits for performance in areas like speed, volume of data, complexity, or environmental conditions.

The MOD's vision is to be the world's most effective, efficient, trusted and influential Defence organisation in AI.

Following the launch of the MOD Artificial Intelligence (AI) Strategy, the Defence Artificial Intelligence Centre (DAIC) became operational to enhance the ability of the UK MOD and accelerate the use of AI to achieve strategic outcomes. The formation of the DAIC was announced by the Prime Minister as part of the wide-reaching Integrated Review of Security, Defence, Development and Foreign Policy in 2021.

Secretary of State for Defence, Ben Wallace, said: "A year ago, we published the Integrated Review, committing to strengthen security and defence and to modernise our armed forces. We warned then that these steps were a necessary response to the deteriorating global security environment, including state-based threats."

"To meet various challenges, Defence must prioritise research, development and experimentation, maintaining strategic advantage by exploiting innovative concepts and cutting-edge technological advances – and Artificial Intelligence is one of the technologies essential to Defence modernisation."

AI forms a key element of the 'Accelerated Digital Solutions' strategic priority in the DE&S Strategy 2025, as DE&S seeks to bring together separate capability projects into centres of expertise.

Nigel Shaw, Director DE&S Digital, said: "AI presents not just an opportunity to replicate what humans do today more quickly, but to do things that are currently impossible for us. This roadmap will outline how we ultimately want to achieve our objectives through the implementation of the AI strategy within DE&S."

"AI has the potential to affect all our activities, from back office through to the battlefield. DE&S are committed to tangible, deliverable applications of AI to solve real business problems and our vision brings together DE&S specific needs and the strategic alignment to the Defence AI strategy and DE&S 2025 strategy."

"This work would not have been possible without input and engagement from a great number of people around the whole of the business, so I'd also like to thank all of those who have contributed for their support."

PEOPLE

Alice Loten

Defence and Security Accelerator (DASA) Partner to DE&S, talks to Desider about her work in helping find and fund exploitable innovations for the defence and security of the UK.

Alice Loten is the DASA Business Partner to DE&S, embedded within the organisation. In her role, she works to help DE&S Delivery Teams find and develop innovative solutions or requirements to Defence and Security challenges. She provides a link to small-medium enterprises (SME), micro businesses, academia and non-traditional defence suppliers through DASA's comprehensive outreach function and provide DE&S Delivery Teams with early sight of innovations that could potentially offer solutions to current or future defence challenges.

DASA's mission is to find and fund exploitable innovations to support UK defence and security quickly and effectively, while supporting UK prosperity. We work to strengthen and broaden links to innovators across the UK and elsewhere, attracting the best innovative ideas for defence and security. DASA may act as a front door into MOD for innovators, but these innovators could be future DE&S suppliers or be a critical part of the supply chain. Our Outreach team have great relationships with our innovators and are an invaluable source of knowledge.

In my role, I seek to understand the challenges that DE&S delivery teams may be looking to solve and to help them find innovative solutions. This could be through highlighting relevant projects or helping the DE&S delivery team and their clients set up a Themed Competition or Innovation Focus Area to further explore a particular challenge area.

Through my engagements with delivery teams, I aim to give DE&S as the delivery agency more of a voice in the assessment of innovation to ensure that we consider and explore opportunities for benefiting from innovation as early as possible. I also look at how we can better understand the commercial processes in order to increase the pull through of innovation into acquisition, particularly from small-medium sized enterprises and non-traditional defence suppliers.

Since 2016 DASA has awarded over £190million worth of funding for innovative ideas. This funding has enabled SMEs, microbusinesses and academia to focus their efforts on Defence and Security challenges. The outputs of those funded projects have helped Defence and Security better understand the art of the possible so that requirements for future capabilities are more innovative.

There is a huge focus on innovation in defence and in DASA it is easy to stay motivated, because we see so many great ideas from really exciting innovators coming through. However, we need to be flexible and innovative in our approach to realising

the impact of innovation. Particularly if that impact is in the acquisition of new or upgraded capabilities. Traditional delivery mechanisms can sometimes make incorporating new ideas challenging, so thinking outside of the box and not being afraid to challenge the norm is important. There are lots of people across MOD who are doing things differently, so we can reach out and learn from others rather than trying to make a change alone.

To help overcome the challenge of realising benefits from innovation, I lead a team of Defence Exploitation Managers who work with DASA funded suppliers to help identify and work towards opportunities for progressing their idea for the benefit of Defence. I also work alongside DASA Partners who are embedded in, Army, Navy, RAF, Strategic Command and Defence Digital. They help to keep DASA aligned with the Front Line Command priorities and match up innovation with potential end users.

For SMEs looking to bid for a MOD contract or enter the supply chain, this can be quite a complex process. By working together, DASA and DE&S can help SME's better understand these challenges and we can make the process easier to navigate. DASA has a good understanding of SMEs and DE&S are the experts on the acquisition process, it makes sense that by sharing our knowledge we can influence change and help increase the diversity and inclusion of the supply base.

DASA will be holding a showcase at DVD where a selection of DASA-funded suppliers will be presenting their innovations. There will also be an opportunity to speak to DASA representatives about how DASA can help find innovation and tackle defence and security challenges.

Anita Friend, Head of DASA, will be giving a keynote speech at the event, so come along to find out why innovation in the defence sector is so important and how DASA supports and enables this.

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NEWS

Typhoon to get world's most advanced radar

Typhoon fighter jets will be fitted with the world's most advanced radar after £2.35bn of investment in the programme was approved by UK Government.

The state-of-the-art ECRS Mk2 radar is vital to Typhoon's control of the air, and will allow the aircraft to simultaneously detect, identify and track multiple targets in the air and on the ground in the most challenging operational environments.

It also equips pilots with the ability to suppress enemy air defences using high-powered jamming and engage targets while beyond the reach of threats.

The investment sustains over 1,300 engineering jobs across the UK including Edinburgh, County Durham, Lancashire and Lincoln.

Additionally, under the investment negotiated by DE&S's Typhoon delivery team, Typhoon will be

enhanced with the latest mission management and cockpit interface so the radar's range of capabilities can be exploited, as well as an updated navigation system and enemy radar jamming technology.

The work also ensures the aircraft can integrate additional capabilities and weapons later in the decade to counter emerging threats until 2040 and beyond if required.

The Typhoon DT's deputy head, Lyndon Hoyle, said: "It has taken a phenomenal effort from DE&S, RAF and industry to ensure we now have the solid foundations in place to take forward this programme and deliver world-leading capabilities for Typhoon over the coming decade. We have only been able to get here through a

collaborative and flexible approach which will remain essential in delivering the programme as we go forward."

The approval of funding also sustains 1,300 jobs across the UK, including Leonardo UK's sites in Edinburgh, Luton and Lincoln, BAES at Warton and Samlesbury, Meggitt (Stevenage) and II-IV in County Durham.

DE&S CEO Sir Simon Bollom said:

"The integration of ECRS Mk2 on Typhoon offers the RAF unparalleled radar capability for the next decade. It is an excellent example of DE&S working collaboratively to procure battle-winning technology that allows our Armed Forces to keep one step ahead of their enemy."

ECRS Mk2 will be delivered into service towards the end of the decade and today's announcement ensures that the advanced technical skills and expertise needed to develop, integrate and deliver these complex projects remain in the UK and are available to support the Future Combat Air System (FCAS) programme.

The Chief of the Air Staff, Air Chief Marshal Sir Mike Wigston said: "The ECRS Mk2 radar is a transformational upgrade for our Typhoon aircraft, and a step change in capability. It will ensure Typhoon is ready and able to protect our skies into the future, in the face of fast-evolving threats to the UK and our allies."

The announcement builds on the Integrated review and Defence Command Paper – which was backed by an additional £24 billion for Defence in cash terms over four years. This funding will allow for investment for the long term in vital capabilities, while simultaneously adapting to a more dangerous and competitive world.

Minister for Defence Procurement, Jeremy Quin, said: "It's vital the UK remains at the forefront of military capabilities to deter the increasing threats to our freedom.

"These technological enhancements will see the Eurofighter Typhoon play a central role in protecting the skies above the UK and our allies for many years to come, as well as supporting thousands of jobs on the ground across the country."



FEATURE

DE&S SUPPORT UK AIR SHOWS

This July saw the Royal International Air Tattoo (RIAT) and Farnborough International Air Show (FIAS) enjoyed by thousands of guests.

Three years since its last edition, the world's largest military air show, RIAT, made its return to Gloucestershire welcoming 266 aircraft and 1,500 crew members from across the globe.

RAF Fairford played host to the three-day-long extravaganza of flying displays from aircraft such as the Hercules C-130J, Atlas A400M, Pumas, Typhoon, Poseidon and F-35B aircraft – all proudly procured and supported by DE&S.

At RIAT, it was announced by Minister for Defence Procurement, Jeremy Quin, that Typhoon fighter jets will be fitted with the world's most advanced radar after £2.35bn of investment in the programme was approved by UK Government. which you can read more about in this edition of Desider.

Following RIAT, FIAS was held in Farnborough the following week. Attracting approximately 1,500 companies, FIAS brought together governments, prime contractors, manufacturers, academics and many other influential representatives in one place to encourage collaboration and growth.

FIAS saw the announcement of a £60-million contract DE&S awarded Leonardo to develop an uncrewed aircraft demonstrator. You can read more about this in this edition of Desider.

Elsewhere, Group Captain Mark Butterworth from the DE&S Catalyst Team discussed the need for speed in aerospace and defence with industry partners and our DE&S graduates and apprentices enjoyed shadowing CEO, Sir Simon Bollom.

Amy Copp, DE&S Finance and Accounting graduate, said: "We had a brilliant time at Farnborough Air show getting out and seeing the kit that DE&S equip and support our armed forces with. It made me feel really proud to be part of the defence community and see first hand the projects we're working on. It was also really great to get to spend some time with our CEO and meet some of our industry partners. A particular highlight was getting to sit in an F-35B fighter jet."

DE&S CEO, Sir Simon Bollom, said: "Farnborough is a great opportunity to meet contractors, military and NATO allies all in one place and do some hard business in a sociable environment.

"For me, this year will be my last, but, on top of the business aims, it was nice to be able to shake hands with colleagues I have known for many years and I wish them all the very best for the future."



FEATURE

FEATURE

FEATURE

DE&S secures life-saving digital protection for bomb disposal troops

Defence specialists called on by UK police to dispose of suspected bombs are being equipped with next-generation digital protection against remotely-triggered devices.

The life-saving technology interrogates the airwaves for remote control signals that may be attempting to detonate an explosive device, allowing skilled Explosive Ordnance Disposal (EOD) personnel to block them using cutting-edge digital techniques.

A £41-million contract placed with Team Endure under Leonardo has created 10 jobs with 100 roles supported around the country including 35 at Leonardo in Basildon and Southampton. Additionally, around half of the contract value will be delivered by SMEs.

The contract was placed by DE&S' Force Protection Electronic Countermeasures delivery team.

Major General Robin Anderton-Brown, UK StratCom Director Capability, said: "This capability shows the MOD exploiting the best available technology from our innovative SMEs here in the UK. In a system designed for the information age, the procurement approach and open architecture will allow us to upgrade, at pace, to respond to new threats and technology. This cutting edge, modular capability will ensure our personnel are best able to deal with the threats they face, now and into the future."

The capability will provide the British Army's 11 EOD and Search Regiment of the Royal Logistic Corps and the Royal Naval Fleet Diving Squadron with both vehicle-mounted and portable systems.

Steve Westwood, FPEC delivery team leader at DE&S, said: "There is great deal of pride within the team that they have secured the procurement of critical technology that will help keep members of the Armed Forces and public safer."

The open nature of the system, exploiting the Land Cyber and Electromagnetic Activities (CEMA) Architecture (LCA) aligns with defence policy of designing systems with hardware and software that can be flexibly deployed and upgraded over its life so ever evolving threats can be mitigated.

DE&S CEO, Sir Simon Bollom, said: "This British Army regiment carries out high risk duties often in direct protection of the public and it is essential that we provide them with the tools needed to carry out their job safely and effectively. Crucially the system is open architecture so it can be updated across its lifetime to ensure advancements hostile technology can be countered."

First deliveries of the new equipment are due to take place from Autumn 2024, with a view to deploying the technology across the whole of Defence's specialist units responsible for explosive device and munitions disposal in 2025.

Minister for Defence Procurement, Jeremy Quin, said: "Our personnel work in hostile environments on dangerous tasks to keep our nation and its people safe. This multi-million-pound contract with Team Endure not only delivers crucial innovative protection for our Armed Forces but is in large part being delivered by UK SMEs."



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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.



DESIDER

NEWS

INNOVATIVE DESTINY PROVES AN INSPIRATION TO ALL

An innovative outreach programme which ‘turned work experience on its head’ has proved a winning formula after a successful pilot at a school in central Bristol.

Programme Destiny was created to inspire children educated within areas of limited social mobility to find their inner talents, boost their confidence around a role in the working world, and to consider DE&S as their potential future employer.

Traditionally work experience students will visit the employer, but instead apprentices and graduate volunteers from DE&S' Entry Talent Centre of Expertise (ETCoE) empowered Year 8 and 9 students at Cotham School by introducing them to all areas of the business.

Around 30 students took part across six teams which, due to Covid, identified that washable face masks were a much-needed product. The teams covered: Business Planning, Project Management, Design, Procurement, Marketing and Communications and Manufacturing.

Students had the chance to experience each team and were introduced to the full range of opportunities at DE&S. From this they could see where their strengths and interests were best suited.

The approach had the added bonus of developing the mentoring, presentational and communication skills of ETCoE apprentices and graduate volunteers at DE&S who designed and delivered the teaching activities to the students both remotely (due to Covid) and in person.

Merryl Elias, Programme Destiny Designer and Manager, said: "We're incredibly proud of Programme Destiny as it gives us the priceless opportunity to engage with children we don't currently reach and make them aware of the wonderful opportunities here at DE&S."

"We know the huge benefits of having a diverse workforce with a broader range of skills and different ways of thinking which encourages creativity and innovation."

"The quality of the work delivered by the DE&S apprentices and the students has been a real stand out and engagement has been beyond our expectations."

"This student-led enterprise is turning work experience on its head and we very much hope it will be a gold-standard outreach programme for years to come."

Suzanne Paice, Cotham School Careers Leader, said: "When DE&S approached us to offer the 'Destiny' project, we quickly realised that this would be an excellent way to start a relationship with a business partner for the school."

"Cotham students enjoyed meeting the DE&S team and were particularly impressed by the commitment to increasing their employee representation of black and minority ethnic groups. Students have DE&S firmly in their sights as a welcoming, interesting and rewarding place to seek employment and training in the future."

Future Destiny Programmes will continue to be centrally managed by ETCoE in 2023.

We know the huge benefits of having a diverse workforce with a broader range of skills and different ways of thinking which encourages creativity and innovation.

NEWS

UK SHIPYARD WILL RESTORE MINE-HUNTER FOR NATO ALLY



British shipyard, Harland & Wolff, has been awarded a £55-million contract to regenerate an ex-Navy mine-hunting vessel, HMS Quorn. On behalf of the Lithuanian Government, the Defence Equipment Sales Authority (DESA) awarded the contract that will see HMS Quorn renovated and restored, bolstering NATO maritime capability in Europe.

Supporting ambitions to bolster British shipbuilding, laid out in the National Shipbuilding Strategy Refresh, the regeneration will support 100 jobs at the south-west shipyard.

The work will see an influx of contractors for the project across the local and national supply chain, with 14 major subcontract packages in engineering, equipment and integration, along with other refurbishment services.

Minister for Defence Procurement, Jeremy Quin, said: "I'm pleased that this

contract will see a former Royal Navy mine-hunting vessel restored and regenerated in a key British shipyard, supporting UK jobs and strengthening British shipbuilding in the south-west.

"Supporting a key NATO ally and Joint Expeditionary Force partner, this mine-hunting vessel will bolster NATO maritime capability across Europe, ensuring the alliance remains ready to respond to evolving global threats."

HMS Quorn completed 27 years of Service with the Royal Navy before being sold to Lithuania in April 2020.

A key Nato ally and partner in the Joint Expeditionary Force (JEF), Lithuania will add the restored mine-hunting vessel to its existing fleet, with the addition of this capability boosting NATO capability across Europe.

Tailored for the Lithuanian Navy, the work includes upgrades to the ships mission

and sonar systems, and an additional search and rescue capability. The contract will also add new main engines, generators and propulsion gear as well refurbish the accommodation, hull, ancillary systems, electrical systems and painting.

Cdre Richard Whalley, Head of DESA, said: "This contract award reinforces our excellent working relationship that we have with Lithuania as our NATO ally as well as UK owned Harland & Wolff. We're really pleased to see HMS Quorn being refurbished in Appledore Shipyard and look forward to continuing our work with them supporting the British supply chain."

It is planned that the ship will be handed over to the Lithuanian Navy in 2024. HMS Quorn is the third mine-hunting vessel that DESA has sold to Lithuania, following the sale of HMS Dulverton and HMS Cottesmore in 2008.

NEWS

£60 – million development of uncrewed helicopter

A cutting-edge uncrewed aircraft demonstrator will be designed and developed in a £60 – million contract DE&S has awarded to Leonardo Helicopters.

Driving innovation in future Royal Navy capability, the project will support up to 100 highly skilled engineering jobs at Leonardo's Yeovil site.

Testing the viability of larger uncrewed aircraft for the Navy, the three-tonne demonstrator – less than a fifth of the weight of a Merlin helicopter – could provide an innovative alternative to existing aircraft for tracking adversary submarines.

Trials will test the capability of the aircraft to drop “sonobuoys” – small tube-shaped buoys that track and communicate submarine activity – enabling the aircraft to alert a crewed helicopter such as a Merlin and call for support if a submarine is located.

Designed to operate at lower cost than crewed aircraft, capabilities derived from the demonstrator could also reduce the exposure of Royal Navy personnel to hostile threats. The uncrewed helicopter is due to undertake its first flight in 2025.

Minister for Defence Procurement, Jeremy Quin, said: “The global threat is changing, and it is crucial we remain at the forefront of defence innovation. Exploring cutting-edge, new defence capabilities through programmes with key British manufacturers, will help to ensure our Armed Forces are equipped to deal with the latest threats.”

If successful, the new aircraft would provide a platform capable of delivering improved surveillance and intelligence, enabling crewed Navy helicopters to re-deploy on alternative missions if required and bolstering UK defence capability.

Sir Simon Bollom, DE&S CEO, said: “Our team were able to make use of a novel and agile delivery approach to ensure that we can accelerate potential new technologies through to the demonstration phase so that they can be delivered into the hands of the UK Armed Forces at the earliest opportunity if required.”

Director Develop Royal Navy, Rear Admiral James Parkin, said: “Proving the benefits of larger uncrewed aircraft (rotary and fixed wing) will be key to understanding whether such aircraft can effectively contribute to future Royal Navy capabilities, particularly for Anti-Submarine Warfare (ASW).”

Capable of carrying a large load, combined with the ability to operate in harsh environmental conditions, the aircraft could also demonstrate its utility across a range of requirements. Beyond ASW, the project

will assess other potential uses including ship-to-ship resupply and casualty evacuation.

James Gavin, Head of DE&S Future Capability Group which awarded the contract, said: “Exploring and proving the use of modern delivery approaches is critical if the MOD is going to deliver capabilities which can deliver operational advantage to time, quality and cost requirements with an increasingly limited headcount.”

The four-year contract will deliver an uncrewed demonstrator as part of intentions outlined in the Defence Capability Framework for future find, strike and lift capabilities to be increasingly delivered by uncrewed and autonomous systems.

Adam Clarke, Managing Director of Leonardo Helicopters (UK), said: “Uncrewed VTOL (vertical take-off and landing) aircraft will transform military capability while also having application in other market sectors, both in the UK and around the world. This contract represents a major step towards our future in next generation uncrewed military technology and the sustainment of unique engineering skills onshore.”

The global threat is changing, and it is crucial we remain at the forefront of defence innovation. Exploring cutting-edge, new defence capabilities through programmes with key British manufacturers, will help to ensure our Armed Forces are equipped to deal with the latest threats.

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FEATURE

DE&S 2022-2025 CORPORATE PLAN

Last year the DE&S 2025 strategy was launched. DE&S' four-year strategy to becoming recognised leaders in the delivery of military equipment solutions for the information age. Since launching, DE&S have celebrated a significant number of achievements against all five of DE&S 2025's priorities. The DE&S Corporate Plan reinforces that strategy, building upon the foundations laid over the last 12 months.



Minister for Defence Procurement, Jeremy Quin

The Government's Integrated Review and Defence's Command Paper set out the evolving threats the UK faces. We are now seeing these threats materialise at increasing speed: threats which challenge our global economic stability, our friends and allies and the international rules based order. The UK has consistently been at the vanguard in championing and protecting democratic values, and UK Defence has a leading role in keeping them safe. The paper also sets out our response to these global threats - our vision for one of the most modernised, integrated and technologically advanced Armed Forces in the world. We continue to make progress in moving towards this goal. We've awarded contracts for new technologies and equipment. We've updated our national strategic plans on shipbuilding, space and land equipment. We are playing a leading role in strengthening our collective security with our NATO partners in this competitive age. We are taking ambitious, unprecedented steps to help build the capacity and resilience of our like-minded friends - Ukraine in particular. Much of this is being underpinned by our Defence and Security Industrial Strategy, our new framework for

working between Government, industry, and academia. It helps Defence increase social value for the UK by boosting prosperity, supporting jobs and building skills. While we have made great progress, there is still a lot of work to do. We will speed up the pace of our work - we've shown how it can be done for urgent operations, we must adopt that same mindset in the rest of our programmes. We will focus on making the systems our Armed Forces need to be persistently engaged and ready for their next missions, instantly available. Defence will also play its part in meeting the environmental goals agreed at the UN COP26 conference in Glasgow last year. We will improve our success on exports, and push for a digital transformation in the way we work. Defence Equipment & Support (DE&S), in partnership with the international community and global industry community, is essential to the success of our Armed Forces. Its Corporate Plan 2022/23 sets out the activities it will focus on over the next three years to support implementation of the Integrated Review of defence and security. I look forward to working alongside DE&S's brilliant team to achieve just that.

The 2021 Integrated Review set out a vision in which our Armed Forces would be more constantly engaged around the world, requiring high-tech skills and equipment. It's our job to meet those needs - both now and into the future. That is why we responded with an ambitious 4-year DE&S 2025 Strategy, underpinned by our promise to our servicemen and women to provide safe and trustworthy tools for the constant challenges they face. Our commitments for the year ahead are clear: we must work faster and more efficiently, so our Armed Forces have the equipment they need, where it's needed, and within budget. Safety is our priority, and we are working with industry partners to ensure we all adhere to the highest safety standards. We will increase the use of digital tools, both in the equipment we provide and ways in which we work as a team, transforming our ability to support our Armed Forces.

1. PACE AND AGILITY FOR OUR CLIENTS

OVER THE NEXT THREE YEARS...

Our commitment to safety is unwavering. This year we will embed our new DE&S Safety Strategy, which will be brought to life through a series of all-staff Safety Days. We will also launch an Accident & Investigation Team to focus on safety and reduce the number of equipment accidents. We are developing a safety self-assessment tool to avoid preventable fatalities in the Front-Line Commands. Our new Centres of Expertise, including one in Counter Uncrewed Aircraft Systems (UAS), will enable us to deliver new equipment from pre-concept to live operations within the year. As a professional delivery organisation, we will be unrelenting in our goal to improve our performance, including reviewing how we strategically manage our most important projects. Managing the resourcing challenges which risk delivery, we will closely align our available resources with our client's priorities. Crucially, we will support the MOD in its quest to accelerate acquisition and make it more agile, beginning to implement the finalised Acquisition and Approvals Transformation model. Forecasting and Requirements Planning implementation will mean we have a better supply and demand signal coming from our clients. Concurrently, we will embed improvements in the training of integrated logistics (iLog) staff and streamline iLog processes

IN THE 12 MONTHS AHEAD...

In the next 12 months we need to be ready to respond to greater economic and security uncertainty than we have experienced for decades. Agility in delivery and support is even more vital so that we anticipate as far as we can and adapt our organisation and programme to meet changing circumstances. Our delivery of Urgent Capability Requirements, and the Heavy Lift Challenge, are just two examples of how we have proven we can deliver at this speed. We must institutionalise this way of working. We will continue to make our platforms more easily available, supporting our Armed Forces in real time. We will help our clients through agile acquisition strategies, countering threats posed in new domains - both digitally and in combat. To find the extra capacity to do this we will become more efficient in the application of our own resources and focus on our key priorities, so our time is spent meeting our clients' needs.



2. VALUE TO THE TAXPAYER AND SOCIETY



OVER THE NEXT THREE YEARS...

Resourcing the capability needs of Defence will become increasingly challenging. We need to make our organisation as lean as possible, working with our clients to remove non-value adding activity and assurance. We will therefore become a more efficient organisation committed to making a positive impact to defence and society, helping the MOD to save £3-Billion by 2025. We are also continuing to outsource low complexity procurement to reduce costs. For example, we are delivering £272M savings to the public through the upgraded Leidos contract, a state-of-the-art and innovative logistics hub that is modernising Defence's supply chain. The Government has a target of net zero carbon emissions by 2050 and we will also play our part to reaching this ambitious goal. We will cut carbon emissions on our estates and put sustainability at the heart of every project we work on. We will become proficient in identifying and delivering social value with our suppliers for the benefit of wider society – including reduction in carbon emissions – with mature reporting that enable us to demonstrate the positive impacts we are making.

IN THE 12 MONTHS AHEAD...

We will continue to deliver efficiencies for the frontline commands, enabling their money to be put to best use. Improved learning from experience and an enhanced efficiency network will improve our effectiveness as a business and cut our operating costs. We will become greener, conducting net zero surveys across our estate to reduce our carbon emissions, and identify a pilot net zero site. Our delivery teams will trial innovative hybrid technologies and seek to use greener, cleaner energy in our solutions, such as our Vehicle Support Team for the use in the Army's wheeled vehicles. We will also launch a Centre of Expertise on energy, to focus on net zero technologies. We will give back to society, uplifting the training of our teams to understand and seek out social value, including through our contracts with suppliers.

3. DELIVERY THROUGH PEOPLE

OVER THE NEXT THREE YEARS...

Our people are the soul of our business. DE&S has a modern and resilient workplace culture that by 2025 will enable us to attract, recruit and retain all the skills we need to support our Armed Forces in the fast-moving world of defence. There is a national shortage of key skills. We will therefore increase opportunities for the upskilling and learning and development for all our people and invest in our leaders. We will pay particular attention to equality, diversity, inclusion and wellbeing within our organisation and in our work with clients too. The modern, agile workforce we're building will be able to solve our toughest challenges.

IN THE 12 MONTHS AHEAD...

We are implementing our People Strategy. By the end of this year, we will have identified the skills that are critical for our future success, refreshing our learning and development products to align to these priorities. We will also provide all our people with access to technologically enabled development opportunities via a digital learning platform. The recruitment, promotion and retention of a skilled and diverse workforce will be driven by embedding our values, seizing the opportunities afforded by smarter working and an attractive reward package. We will embed our values into recruitment, performance management and reward process. To make our people management more efficient and mature, a digital HR system will provide quality management information to support our decision making.

4. ACCELERATED DIGITAL SOLUTIONS

OVER THE NEXT THREE YEARS...

Digital technology and innovation is central to our work. We will find new ways of integrating our IT systems and sharing data. We are connecting with military, industry, academia and other governmental bodies to pull together cutting-edge technology from right across the defence world. Our digital capability strategy will see us lifting our collective digital expertise, helping our staff to identify any areas where they need support. We are accelerating our use of digital tools, automating work that is currently too resource intensive and identifying 6,000 datasets that we can use and trust to help make urgent decisions in conflict.

IN THE 12 MONTHS AHEAD...

The launch of the DE&S Digital Strategy connects, for the first time, the business space and the battlefield, digitising our services and our decision making. We are evolving and innovating with new tools, including the implementation of 'Digital Twins', which allows us to test our equipment in a virtual environment at a faster speed than traditional testing methods. This will also give us an advantage in many other applications, such as testing our buildings and equipment for carbon neutrality or streamlining our supply chains. We will focus this technology on improving battlefield equipment and increasing the use of machine learning.



5. DELIVERY THROUGH PARTNERS

OVER THE NEXT THREE YEARS...

In industry, in defence, in government, and internationally, we are building on our relationships with suppliers to address performance issues early and plan for the future. We will strengthen the resilience of our supply chains, reduce the time taken to award contracts and support our staff to meet clients' needs. Following the international priorities set by Ministers and the MOD, we will diversify our client base, advance technology, increase export opportunities and improve our partnership working.

IN THE 12 MONTHS AHEAD...

The supply chain is becoming increasingly fragile, with scarcity of raw materials growing. It is therefore critical that we monitor the supply chain, working closely with our main suppliers to mitigate risks. We will embed our Supplier Partnering Programme with our four biggest suppliers, identifying the causes of any poor performance and addressing it at source. We will work with our clients to apply Secure by Design principles to new projects, meaning the capabilities we deliver are foundationally secure. Internationally, we are working closely with partners in NATO, Europe and across the world, putting collaboration at our core and playing our part in meeting MOD's strategic objectives. We will boost UK prosperity by establishing a focused exports management programme and pool international expertise to make best use of our people and their skills.



NEWS

News in Brief

Wedgetail modification

A brand-new Boeing 737NG aircraft has arrived in the United Kingdom for conversion into a Wedgetail airborne early warning aircraft for the Royal Air Force.

The modification work, which includes the fitting of the dorsal Multi-role Electronically Scanned Array (MESA) Radar, will be undertaken by the highly skilled engineers of STS Aviation at Birmingham Airport.

Wedgetail, which is being delivered by DE&S, provides long-range air surveillance

and control of an area of operations. It uses the MESA Radar and on-board passive systems to collate a picture of a large area of airspace (the 'air picture') which enables the crew aboard to provide tactical planning and control via communications to other aircraft and commanders on the ground.

Wedgetail will also continue and enhance the UK's commitment to the NATO Airborne Early Warning and Control Force, and the provision of NATO Assurance Measures

Missions so successfully undertaken by the Sentry fleet over nearly 30 years.

The RAF has also recently revealed the livery of its new Wedgetail AEW1 (E-7) aircraft. The three aircraft will be operated by VIII Squadron from RAF Lossiemouth whose Arabian dagger badge appears on the tail fin. The dagger, known as a jambiya, was adopted in recognition of the unit's long association with Arabia and is sheathed to symbolize the squadron's guardian duties.

On the nose is the shield of the NATO Airborne Early Warning and Control Force, reflecting the UK's commitment to continue to provide the Alliance with air surveillance, command and control, battle space management and communications.

Wedgetail, which is being procured by Defence Equipment and Support, provides long-range air surveillance and control of an area of operations. It uses a Multi-role Electronically Scanned Array (MESA) Radar and on-board passive systems to collate an air picture of a large area of airspace. This enables the crew aboard to provide tactical planning and control via communications to other aircraft and commanders on the ground.



DE&S' net zero plans praised in NAO report

The National Audit Office (NAO) have used DE&S as an example of a government department going further in their environmental work.

The National Audit Office (NAO) is the UK's independent public spending watchdog. They scrutinise public spending for Parliament and is independent of government and the civil service.

In June 2022, the NAO Comptroller and Auditor General published the 'Measuring and reporting public sector greenhouse gas emissions' report. In it DE&S are highlighted and praised for our net zero carbon emissions plans.



RAF Voyager demonstrates large aircraft refuelling capability

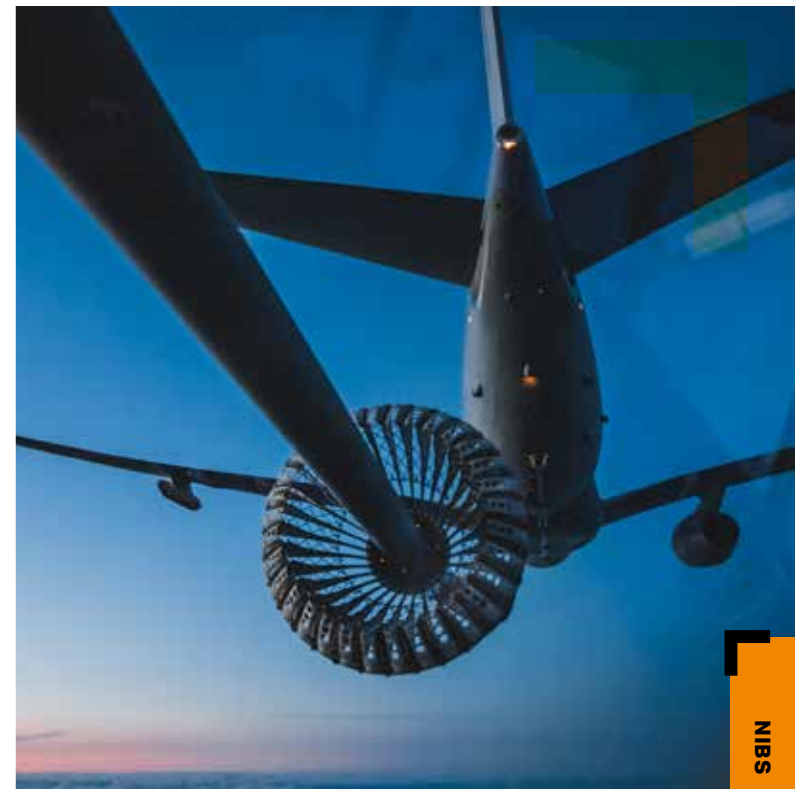
DE&S are responsible for delivering more than 600 tonnes of fuel a week – supplying and supporting military aircraft such as Voyager and Typhoons.

A RAF Voyager has recently demonstrated and often forgotten capability by carrying out an air-to-air refuelling training sortie with a C-130J Hercules.

The Voyager is a key element of strategic air transport for the RAF and also the sole aerial refuelling aircraft meaning it is a true force-multiplier. The concept of a force-multiplier means that as an aircraft, the Voyager, has the capability to increase the combat potential of other aircraft by being able to refuel them when required. This in-turn allows RAF combat jets, such as the Typhoon and F-35B, the ability to increase their time-on-task or range to conduct operations.

Air to Air Refuelling allows larger RAF aircraft, such as the Atlas A400M and Hercules C130J, the ability to support humanitarian missions and airdrops in difficult locations. A recent example being when a RAF Hercules deployed to the Falkland Islands to conduct a number of sorties dropping supplies onto the Sky-Blu Field Station in the Antarctic.

The Voyager therefore remains a vital component of the air-mobility fleet which gives the RAF the ability to enhance the delivery of air power world wide.



Defence Battle Lab sparks innovation

Engineers at Babcock showcased their autonomous and robotics capabilities to the DE&S Future Capabilities Group and other MOD personnel at a new hub designed to spark innovation and push the boundaries of technology.

The Defence BattleLab, on Dorset Innovation Park, brings together military personnel, academic institutions and private sector companies to experiment with cutting-edge technology.

The collaborative innovation day demonstrated how partners work together to achieve multi-domain integration solutions.

The company showcased a system which simultaneously controls multiple autonomous vehicles across land, sea, and air. On the battlefield, this could allow vehicles to complete missions such as logistics resupply and casualty evacuation, along with tasks involving surveillance, reconnaissance, and electronic warfare.

The system would allow personnel to be released from more dangerous or mundane tasks to focus their efforts elsewhere.

Dr Richard Drake, Chief Technology Officer at Babcock, said: "The defence landscape is changing rapidly and becoming increasingly digital – that means the challenges, the threats and technology solutions are quickly changing too."

"Multi-domain integration is central to digital defence and by working with the brightest and most innovative SMEs, we have created an agile solution at pace – and it was a privilege to demonstrate this at the Defence BattleLab."

Collaboration on Benefits leading the way

The MOD Cost Assurance and Analysis Service (CAAS) provide independent Benefits Assurance and Assistance for DE&S. Alongside the DE&S Benefits Team they have developed a collaborative relationship to optimise value for the taxpayer.

CAAS worked with teams across Defence to create the Benefits Management Common Approach (BMCA) model. The BMCA provides technical guidance for consistency in the departmental approach to efficiencies therefore delivering greater value into the Defence Plan. The DE&S Benefits team contributed their own best practice and experience for the BMCA and the quality of guidance has led to other government departments considering adoption of the BMCA approach.

DE&S Benefits Team Assistant Head, Mal Hicks, said: "The collaboration between DE&S and CAAS has become an integral part of meeting the DE&S efficiencies challenge. DE&S guidance is underpinned by the BMCA and CAAS independent assurance supports the robustness of our benefits with continuous feedback to all users. An example of our joint working was in the development of the DE&S Benefits Management Application (BMA) which identified electronic retrieval of evidence as a priority. This has improved the ease and quality of Benefits reporting".

FEATURE

The world in 2030: creating an inclusive workplace for everyone



The Women In Defence Charter aims to make the defence sector an attractive industry to work in for women, with particular focus on retaining and supporting women into senior management positions. Recently at Farnborough air show, Founder Angela Owen OBE, hosted a panel discussing 'Creating an inclusive workplace for everyone'.

Speakers on the panel included Sir Michael Wigston, RAF Chief of the Air Staff; Amanda Wood, BAE Systems Supply Chain Sustainability Director and Kate Lawrence, DE&S Chief of Staff. During the discussion, the panel spoke about how defence organisations can lead on diversity and inclusion at the most senior levels.

Opening the discussion, Angela Owen OBE, founder of Women in Defence, said: "We really need to make sure that regardless of background, women are able and competent to give their best, have their efforts and their skills recognised and really be able to achieve their full potential. It's important to recognise that we're not alone in that challenge. And that's where the women in defence charter plays such a vital role."

Talking about DE&S' commitment to creating a diverse workforce, DE&S Chief of Staff, Kate Lawrence, spoke about the DE&S becoming programme. Kate, explained: "The DE&S becoming programme is taking high potential people that work for us in middle management positions and giving them the opportunity to go through a programme where they can learn to be confident in preparation for progression in their careers. One of the things I see from my perspective is there is a real desire to make a difference and make a change. A fabulous colleague of mine who was one of the first people to be part of the DE&S becoming programme told me that being part of the it has empowered her to face her fears, calm her worries, understand her motivations, and bring her whole self to the table."

Chief of the Air Staff, Air Chief Marshal Sir Mike Wigston – who has recently been announced as the Ministry of Defence's Patron of the Women in Defence Charter – spoke about how diversity and inclusion in defence is essential to operational effectiveness.

He said: "I was delighted when the Minister of Defence alongside the Royal Air Force, Army Navy signed up to the charter back in 2019. And I am delighted to be the MoD Patron to the Women in Defence Charter. I look forward to building on the great work achieved since the launch of the Charter in 2019, driving forward diversity and inclusion across our organisations and enhancing opportunities for women in Defence."

The Women in Defence Charter has set out a clear ambition for a minimum of 30% of Defence sector roles at all levels to be filled by women by 2030. Signatories are committing to be the very best at driving inclusion and diversity within their organisations and providing opportunities for women to succeed at all levels.

NEWS

Rotary Wing Enterprise to improve helicopter availability for UK Armed Forces

DE&S is working with the Royal Navy, British Army, Boeing Defence UK and Leonardo Helicopters to explore a Rotary Wing Enterprise to transform the support of four helicopter platforms.

The Rotary Wing Enterprise Commanders' Intent document was signed by the principal partners involved at the Royal International Air Tattoo at RAF Fairford and aims to make Chinook, Merlin, Apache and Wildcat even more available and effective as they serve UK Armed Forces around the globe.

Through revised commercial models, incentivised contracts, innovation and creation, the agreement should create a 'win-win-win' scenario for DE&S, front-line commands and industry.

DE&S Director General Land, Chris Bushell, said: "The signing of the Rotary Wing Enterprise Commanders' Intent shows the joint commitment between the front-line commands, DE&S and industry to develop innovative contractual solutions to improve availability, sustainability and capability of our rotary wing aircraft fleets.

"The enterprise will see MOD and industry work closer together to achieve better outcomes for all."

Rotary Wing Enterprise is currently in the design phase, following support solution studies with Boeing and Leonardo. Wildcat and Merlin Forces serve the Navy and Army and have long-term training and support agreements with Leonardo, based in Yeovil.

Leonardo Helicopter Division UK Managing Director, Adam Clarke, said: "This co-ordinated approach to the delivery of support services between DE&S, the front-

line commands and industry is key to the design of progressive and modern support solutions.

"As the battlespace evolves and demands on the operator are continually challenged, the company recognises the significance in working together on a support services framework to deliver support advantage for UK Defence."

Support and training solutions for RAF Chinook and Army Apache helicopters are delivered by long-term contracts with BDUK, supporting hundreds of UK jobs.

Anna Keeling, Vice President and Managing Director of Boeing Defence UK, said: "Recognising the unique value that rotary platforms deliver to UK Defence, Boeing is delighted to actively partner with the Ministry of Defence on the Rotary Wing Enterprise programme, which seeks to coalesce several lines of support and sustainment to generate capacity to deliver helicopter capability and availability, when needed.

At its core, the project looks to the future and what more can be achieved through Ministry of Defence and industry working ever closer together."



PEOPLE

Beth Fitzpatrick

Name:

Beth Fitzpatrick

Job title:

Service Delivery Lead, Futures Lab

What does your role involve?

I am responsible for delivering the Future Capability Group service, I work very closely with the Futures Lab Change Manager, Rachel Crease from the DE&S Future Capability Group and lead a team of Command Leads, Aurora Engineering Partnership (AEP) experts, to help defence – including Front Line Commands – shape their ask from a pan-industry collaborative team. This is then delivered using our open provider network, including SMEs and academia, through the Engineering Delivery Partner (EDP) mechanism.

What is your greatest accomplishment to date?

I have been most proud of the success of the Futures Lab team in its first year. Considering we started in the virtual working world, we had so many positive engagements, and also delivered successfully on requirements for each of the front line commands.

What keeps you energised about working at DE&S?

I really enjoy being a part of the business that equips our armed forces. It is such an important role, including accelerating innovation to the front line where it is needed.

What about your role is exciting, rewarding, or interesting?

We get to deliver some really exciting tasks. Whether it be Artificial Intelligence for the Navy or innovative autonomy such as next-generation robotics for the Army, all of the tasks that Futures Lab deliver help our armed forces make the right decision. It is now, more than ever, imperative to make the right choices, and spend public money wisely. Being a part of the innovation landscape of defence is really rewarding!

How important to you is Teamwork?

It is absolutely vital. Not only is collaboration a key component in the delivery of Futures Lab tasks, but our Command Leads also cohere challenges across defence. Therefore, we have to work closely as a team, alongside our military counterparts, including the likes of DASA and Dstl.

What do you most enjoy about your job?

I really enjoy engaging with people – not only across the defence enterprise, but also across all of industry and academia! Getting the opportunity to support next generation capability is also up there.

Who or what has shaped who you are?

Being able to work with lots of different teams, and I am shaped by each and every person I have worked with – whether that be things to definitely do or things to avoid! I have some great role models who I have met throughout my career so far, and have also benefited greatly from some of the brilliant initiatives around career development. Whether it be conferences or training, I am continually improving (I hope!).

What do you enjoy doing in your spare time?

I really love doing STEM outreach and sharing what I do with the younger generation – as I only really got into Engineering by chance! So any opportunity to share the variety and creativity of engineering I take.

What might surprise people about you?

That I actually studied Physics at University! It gives you problem-solving skills and resilience so I would recommend it to everyone. It opens so many potential doors.

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

Probably the essence of Covey's 7 Habits – seek to understand before being understood, and work towards a solution that everyone is happy with!



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