

**LOGNET**  
**Innovating, Developing & Delivering**  
**The Defence Support Network**

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**LIEUTENANT GENERAL RICHARD WARDLAW:**

*[Applause]* Well, thank you very much indeed, ladies and gentlemen. Yes, I cannot believe how delighted I am to be back. My return flight from overseas travel did its very best to confound me joining the conference. It is also somewhat annoying because although I managed to join for the last two presentations which I thought were excellent, I was also genuinely humbled by what I was hearing, because it makes me realise that although I am some three or four months in, I really don't know nearly as much as I need to know, but actually that is the whole point of the LOGNET conference. It is to bring these ideas out and for us to share so that we learn together. I would like to just start though by thanking you all for making the commitment to be here today. I am honestly somewhat in awe of the number that have turned up. I think we have almost doubled last year's attendance and I think that at the very least is a clear statement of the value that you place in Defence and it is recognition of the part that I think industry must play in securing the future, of which I will talk about a little bit more shortly.

I would also like to add my thanks to those who have worked so hard to make this conference happen and to many of the companies who have stands, some of which I managed to see at the break. Now, I did take the opportunity that Dr Kutarna encouraged me to think about which was to look up "What are generals...?", and you'll be pleased that Google comes up with as the first

suggestion “Rich”. Well, I can assure you that’s not a description I’d normally recognise but I’m glad to see that people are certainly Googling us as their first priority. The second of course was ‘are generals diplomats’; well, you’ll be the better judge of that at the end of today.

Now, some of you know I took up the role of Chief Defence Logistics and Support in October last year. Well, let’s face it, it is not a new role for Defence. For those of you who’ve been around Defence for 20 or more years, you will recognise that having a senior appointment responsible for defence logistics is not exactly novel. It’s important therefore, that I start by explaining what Defence Support is, why I think it matters to everyone in this room and how my appointment will help drive this new ambition for defence. Doing so will, I hope, also explain the rationale for the decision to create the Defence Support organisation and the related operating model. I will then switch our focus to the challenges that I think we face, the reasons we are where we are and the course that we are setting to move from where we are today to our vision for support in 2035 through of course the current headmark of Joint Force 25, while leveraging the opportunities that are now presented by the Integrated Review.

So, what do we mean by the term Defence Support? Well, for the avoidance of doubt it is not just logistics on steroids. No. In developing the concept of Defence Support, and I’m delighted to see Angus [Faye] is here because he was the architect of this and he deserves huge credit for this, what we have done is recognise that if we are to enable Defence to fulfil its purpose, to protect the nation, deter conflict, defeat our enemies, then it is not enough to consider simply the logistic challenges of doing so, be that moving troops, loading aircraft, delivering commodities, fuel and ammunition, important clearly as these are. Defence Support recognises that in enabling the full suite of capabilities Defence requires to meet its purpose, we must widen our ambition to include those engineering activities which ensure our equipment is fit for use and maintained in such a way that it does what it says on the tin and critically when we need it to do so. Defence Support therefore encourages us to recognise that enabling Defence to meet its purpose requires a conscience from cradle to grave in the way we design and develop our future capabilities and optimise the ease with which they can be maintained and sustained from point of production to consumption or end of useful life.

Now, why is this important? Well, if we are successful in drawing together these strands, we will play a significant part in enabling our ships, tanks, aircraft and our sailors, soldiers and airmen to fulfil the extraordinary requirements that we place on them. Whether that is fighting our enemies in foreign lands or closer to home, supporting our communities when they are in peril, enabling them to do so with fit for purpose equipment, ready and capable at the point of use, clothed, equipped and armed as they need to be, and in doing so we must increasingly recognise other

imperatives, be that the extraordinary impact the money Defence Support spends on the UK economy and the devolved nations - Defence support spend is the equivalent revenue of an FTSE 30 company - or in playing our part to ensure the way Defence operates addresses the existential crisis which is climate change.

My role, as I see it, is to provide the focus within a single person in Defence to be the senior driving force for the changes required in the way Defence steps up to this challenge. It means providing a vision for Defence Support which guides the support ambitions of each of the frontline commands. It means driving policy and performance standards across Defence, such that we design in the requirements we know will optimise through life availability. It means holding the mirror up to the financial investments we choose to make or not to make, and it means shaping the skills, competencies, culture and training of our people so that they march confidently into the digitised and increasingly networked world which will be the defining feature of the first half of the 21<sup>st</sup> century.

To meet this ambition to deliver a more effective and efficient support across Defence, the new Defence Support organisation will stand up on 1<sup>st</sup> April under Strategic Command. Now, our positioning under Strategic Command is pivotal to our ability to drive change across the other frontline commands, for it is Strategic Command which has been given the mandate to drive integration across the other frontline commands including the new domains of cyber and space. You may hear this referred to as multidomain integration. This concept of integration means going way behind jointery. It is about exploiting our increasingly digitised software driven platforms within a digitised network, the military equivalent of the 'internet of things' if you like, where our equipment, processes and people connect intimately and in real time to deliver military effects with a speed, precision and intuition that is enabled and enhanced by artificial intelligence and machine learning. In the support network it means amongst other things equipment automatically recognising when it needs to be maintained, initiating the requirement for spare parts or servicing and the execution of its distribution, potentially without any human interface at all, not in days or hours but in seconds, irrespective of where in the world it might be. The outcome will be more capabilities, more available, more of the time with less waste at less cost and with a reduced carbon footprint, enabling operational commanders to outpace and outwit our enemies and for Defence to deliver what the Nation expects of us.

Our new organisation is only part of the story as there will be a new Defence Support Operating Model to accompany it. That is how this organisation will both worth in itself, but critically interface and integrate with others across Defence and of course with industry. To enable us to join the dots in this way, to have our voice heard at the right time and in the right forums, equipped with the right

information and the right insights demands that we bring together existing teams from across Defence. This new organisation, the Defence Support organisation, will be around 600 strong and while it will be an organisation of many parts, we will be joined by the same purpose which is to make support better. With responsibility as Functional Owner for Defence Support comes the authority to engage with and leverage the collective efforts of all those delivering support across the frontline commands, in the enabling organisations, in other government departments and in industry. So, in a very real sense the support function is a workforce of 60,000 professionals, be that folks at a desk shaping strategy and policy or those electrical and mechanical engineers or logisticians on the frontline, regular, reserve, civil servant and contractor. So much for the role, the scope and ambition for the new defence support organisation.

Allow me now to share with you the insights from my first hundred days as CDLS of the support landscape that I think we face today. As many of you know, over the last two decades Defence reviews of support facing capabilities have been numerous but have consistently highlighted the opportunities for greater operational effectiveness, financial efficiency, coherence and resilience. In response, a series of significant improvements have been made. This includes the £2.8 billion of NAO audited efficiencies through innovative approaches and negotiation with industry whilst maintaining or enhancing operational support and reinforcing our status as a reference customer for support. Notwithstanding these and other improvements, not least a growing momentum to reduce demand and a clear commitment by both Defence and industry to modernisation, Defence unfortunately has not succeeded in getting all support solutions 'right first time'. Too many decisions are taken in the absence of data and without clear scrutiny and assurance of the support implications. The result is a range of support solutions which routinely do not place sufficient privacy on availability, confound commonality and fail to embrace shared access to and ownership of data. Colleagues, this has to change.

The strategic base, the infrastructure, capabilities and nodes which enable us to outload operations from the UK lacks effectiveness, efficiency and coherence to outload a force at the scale and pace we might wish. The absence of a common pan enterprise digital network for engineer and logistic information systems confounds understanding and effective control. Outsourcing to industry and poorly configured whole force approaches have resulted in unquantified risks or reliance on untested surge capabilities. In what too often looks like whole force by accident, not design, we have been guilty of valuing efficiency and value for money over resilience and agility, and I echo Marcus's thoughts on that. This too must change.

There is widespread evidence that the demand signals we place on equipment availability, spares and commodities have been poorly defined or subject to interpretation that has not been well

policed. When linked to a broad and often poorly understood dependency on industry and its organic capacity to meet such requirements, the result is an inability to understand where risk truly resides or aggregates to worst effect. In response, the end user, those soldiers, sailors and airmen lack confidence in the supply chain's ability to deliver which in turn leads to overstocking and waste. We simply cannot afford to continue to waste money in this way.

The support landscape across all domains contains too many equipment and material acquisitions which have prioritised time and cost of procurement over performance and cost of ownership. While I accept it is often difficult to determine at the outset what the true cost of through life support is likely to be, too often we have made insufficient risk provision against the point in time when such requirements are better understood. The result is that today we have platforms where availability is either unacceptably poor or we are spending disproportionately to maintain some platforms over others. Our productivity must improve.

We are not short of data but we often do not have the right data. It is often in the wrong format or incomplete and we are not always able to access it or manipulate it to tell us what we need to know. So again, Marcus, your timing was perfect. As a result, fragmented and incomplete data compromises effective, strategic asset management and end to end logistic support and drives in cost. Our data vulnerabilities are also preventing us partnering as well as we want to, often undermining the operational and financial benefits that we seek. Colleagues, while there may be money to make in the short term out of this position, this is really not a sustainable proposition. We must, I urge us all, adopt a more collective approach to data curation.

Finally, notwithstanding our status as the UK's largest supplier of apprenticeships, the proliferation of platform types, only in part digitised, and the wide variety of support solutions, contracts and related IT systems places immense demands on our people. It drives cost into their training. It compromises their effectiveness in role and it really does constrain employment flexibility. We are simply too small to sustain this trajectory.

It's important if we are to move beyond a first order response to these challenges that we understand better the actual route causes of why we are where we are. For today's conference I would highlight five. First, despite being one of the largest elements of spend in the Defence portfolio there has been no single role with oversight of the defence support enterprise between the removal of the Chief Defence Logistics role in 2014 and my appointment in October 2019. This has, amongst other things, compromised effective sponsorship of the strategic base as a discrete capability in its own right. It has undermined effective championing of the required support solution policies and performance standards. It has deprived a strategic view of workforce requirements,

diluted assurance and scrutiny of procurement and defence's investment in understanding the cost of in-service support and has hindered efforts to provide a strategic view of defence support spending as a portion of the whole.

Second, while the merger of the DLO and DPA has promoted a greater focus on partnering with the industry to deliver better procurements with fit for purpose support solutions, we continue to confound DE&S success through a poor articulation of support user requirements, too many late changes and insufficient investment in getting the geometry right between delivery team (the client), the customer (the frontline commands) and the contractor, you, the suppliers once those platforms are in service. This latter broken geometry leads to unhelpful air gaps between client, customer and supplier confounding partnerships and the sharing of risk.

Third, the root cause of poor data and data analytics is successive failures to set a defence support information strategy which drives investment priorities and approvals. This is compounded by a deeper cultural issue in which defence has not viewed support related data, information and insights and the networks over which such data flows as a source of competitive advantage.

Our failure to define, assess or assure the overall performance of Defence Support has resulted from not having a clear statement of strategic intent, the performance ambition. Moreover, different elements of defence value different performance. Nowhere is there a common agreed unifying performance goal for support and a coherent view of what it should cost to meet it.

Finally, in the absence of a support function, support professionals have been operating without a singular vision, strategy or collaborative network across defence to drive and motivate improvement. Without this knowledge transfer, collaboration and awareness of pan defence performance has been largely non-existent and where it does exist entirely reliant on the relationships formed by those individuals. Now, notwithstanding the significant improvements and successes secured by the DE&S and frontline commands in recent years, the level of change required to address those root causes and issues outlined here is not to be underestimated. Maintaining the status quo is not enough. Change will not be achieved without wider acknowledgement of these root causes and the corresponding opportunity cost of failing to improve and exploit the performance impact support has on Defence.

So, let me finish with a view on the vision we are developing for Defence Support out to 2035 and the associated waypoints I wish to see delivered through the Support Strategy over the next five to seven years. The overarching support vision is that within 15 years from today, Defence Support continually secures 'support advantage' and in doing so delivers a battle winning edge across the

spectrum of conflict and contributes directly to modern deterrence. This support advantage is achieved through significantly improved platform equipment availability. It is achieved through superior, assured, coherent and cost effective logistics underpinned by robust, secured and pervasive cloud based digital backbone, and it is achieved through a culture which prizes innovation, interoperability and places NATO and industry at the heart of defence.

More specifically by 2035 defence support needs to be people centric where defence support develops a culture which places a primacy on inquisitiveness and innovation. Where it values professional support expertise in the future workforce, enabling us to be multifunctional, digital savvy, multigenerational and capable of leading, driving and sustaining the blended support force, regular, reserve, civil servant, contractor and machine to deliver support advantage. I am personally leading in this area by being one of the first to sign up for the new senior digital leaders' training which will be a significant commitment over the next six months.

Information led where defence support has information that is data rich, evidence based, readily accessible and appropriate to each area of support. This will see us exploiting cognitive analytics to drive rapid decision making throughout the defence support enterprise where the impacts of support are understood and optimised against defence outputs.

Technology enabled with defence support underpinned by widespread innovation, sustainability and the integrated digitisation of platforms and processes that deliver a competitive support capability and associated force development. Off the shelf, automated and autonomous technologies are implemented wherever possible and bespoke only where necessary. Automated sensor, monitoring and reporting technologies will generate at machine speeds a complete real time joint support picture and predictive capabilities which enable real time optimisation of the platform for its environment, potentially operating through a federation of integrated support operation centre in each frontline command, resilient, effective and efficient so that defence support can survive and function in all environments and against all threats, spanning information, equipment and operations with allies and industry partners but in a way which maximises operational outcomes and optimises cost. Throughout the strategic base and operating areas, we will have visibility of and actively manage the resilience of industry partners and exploit AI and autonomy ruthlessly but always asking those three questions, Chris.

An appropriate level of resilience will mitigate against climate change and will allow us to have taken the first steps to meet, if not exceed, Net Zero 50 ambitions. Integrated and interoperable so that defence support is international by design, exploiting industries global forward network through

embracing modularity and standardisation to enable greater levels of interoperability, increase speed of response and reduce costs associated with hitherto bespoke requirements.

Turning to the strategy to meet this ambition, I expect the early outcomes linked to the integrated review to include an effective and resilient Defence Support Enterprise. By 2025 the Defence Support Enterprise will be a key enabler of operational advantage and deliver a continuously competitive response across the spectrum of conflict including in the grey zone. In particular, through programmed investment in key capabilities, increased integration of equivalent civilian capabilities, rationalisation of its footprint and a demanding series of live and simulated exercises under the Agile Stance campaign, my ambition is to develop a resilient strategic base as a capability in its own right through which we are able to command and control the UK's ability to outload and inload across a digitally enabled support chain. Informed by digital twin development, we will deliver a common end to end enterprise logistic picture which drives agile projection at the speed of relevance.

Effective decision making across the Defence Support function by 2025, decision making in defence support will be data driven, information and insight led and increasingly enabled by digitally transformed engineering and logistic information systems. Richard Hill will have spoken to some of that ambition this morning. Common processes, structures, metrics and targets will objectively quantify support performance and provide the engine to drive continuous improvement, effective support solutions at reduced cost with a smaller footprint and lower environmental impact. By 2025, demand for support I aim to reduce by 30 percent over current levels by optimising current support solutions through the upscaling of ongoing discovery projects and the exploitation of innovative digital moonshots, to accelerate the conjoining of best in class asset management with a digitally enabled end to end logistics supply chain. More fundamentally, we will be designing in lean engineering and logistic demand for the next generation of digital platforms, recognising that our carbon footprint is analogous with where we are most inefficient. We have taken the first substantive steps to set our trajectory for Net Zero, exploiting the best in class industrial innovation in doing so and I am delighted to hear some of the ideas that have been coming through at this conference.

By 2025, Defence Support will have developed a support operating concept that embeds competitive support advantage underpinned by a multidomain, integrated experimentation programme focused in the first instance on artificial intelligence, machine learning, autonomy and additive manufacturing. We will also seek to accelerate innovation and to leverage academia, industry and allied experimentation in common technologies, driving new kinds of partnership which seek to share the cost of such experimentation, introducing to defence support the benefits, if you

like, of the shared economy that we enjoy in our private lives. By 2025, working closely with our DE&S colleagues, Defence Support will have reset the skills of those defining the requirement for the next generation of capabilities to place primacy on digital first. We will have invested in the support workforce to be a more intelligent customer of the services we procure and we will have tackled the worst cases of poor customer supply geometry. Data analytics will be prized and established as a core skills set across defence for enterprise. Decision making will therefore be much more objective and increasingly devoid, I hope, of interservice politics. Doing the right thing and doing things right will be increasingly the hallmark of the investment decisions we make.

I expect, and would hope, that many of you represented here today will play a vital role in meeting this ambition we have set for defence and increasingly to do so in such a way that exploits the synergies and opportunities which come with operating in an integrated way across all five domains, land, sea, air, cyber and space. If we to be true to this ambition then I would implore every one of us to think the unthinkable, challenge every assumption we make about Defence and seize the opportunity presented by the ongoing Integrated Review to genuinely give the force of the future that battle winning edge. That's probably a good place to finish. As we march towards 1<sup>st</sup> April and the creation of my new organisation, there will be no big bang on day one, but we will be at the start of a journey. It is a journey that I am keen to get on with and quickly but I am also acutely aware that it is our collective ability to learn faster than our enemies which is our only sustainable advantage. I would therefore suggest, colleagues, that we must prize ways of working which promote this ambition and perhaps this African proverb puts it best. I look forward to meeting as many of you as possible, listening to you and of course working with you. Thank you very much indeed for your time and interest today.