

Scottish Affairs Committee

Oral evidence: Securing Scotland's future: Defence skills and jobs, HC 1442

Wednesday 22 April 2026

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Members present: Patricia Ferguson (Chair); Dave Doogan; Lillian Jones; Mr Angus MacDonald; Douglas McAllister; Kirsteen Sullivan.

Questions 95-133

Witnesses

I: Neil Holm, Chief Operating Officer, BAE Systems Naval Ships; John Howie, Chief Corporate Affairs Officer, Babcock; Cathy Kane, LTPA Portfolio Director, QinetiQ; Mark Stead, SVP Radar and Advanced Targeting, Leonardo.

Examination of witnesses

Witnesses: Neil Holm, John Howie, Cathy Kane and Mark Stead.

Q95 **Chair:** Good morning and welcome to this meeting of the Scottish Affairs Committee. Today, we are going to be looking at the theme of securing Scotland's future, focusing on defence skills and jobs. Thank you all very much for joining us this morning. Can you briefly introduce yourselves and your roles?

Mark Stead: Good morning, everyone. My name is Mark Stead. I am the senior vice-president for radar and advanced targeting at Leonardo. I head up the Edinburgh and Newcastle businesses of Leonardo—principally Edinburgh, which is based 2 miles north of the centre. We are world leaders in airborne radar and advanced targeting systems. We have been there since 1943, originally as Ferranti, with gyro gunsights for Spitfire and the like. I have been in the defence industry for most of my career, studying in Cardiff and then working in the Ministry of Defence round the corner from here, and latterly elsewhere in England and Scotland. I have led the business for about six and a half years in Edinburgh.

Cathy Kane: Hello, everybody. My name is Cathy Kane. I work in QinetiQ, one of the defence industry primes in the UK, and I lead the LTPA, which is a contract that QinetiQ operates on behalf of the MOD. We deliver trial, test and evaluation services to the MOD at 16 sites across the UK.

Neil Holm: Good morning. My name is Neil Holm. I am the chief operating officer of the BAE Systems naval ships business based in Glasgow in Scotland. As part of that, I primarily run our shipbuilding operations, and we employ about 5,000 people in and around Scotland and the Glasgow area. We are the last shipbuilder in the upper Clyde and are very proud of what we do. Our primary role at the moment is to develop and deliver the next generation of anti-submarine warfare frigates to the Royal Navy.

John Howie: Good morning. I am John Howie. I am the chief corporate affairs officer at Babcock. I am responsible principally for our relationship with the UK and international Governments, as well as international business growth and a host of other things, including technology development. My job prior to this was chief executive of our marine business, looking after our sites in Rosyth, at the naval base at Faslane and elsewhere in the country. It is probably a constant fight with BAE, but I think that Babcock today is still the largest engineering employer in Scotland across our maritime, rail and other businesses. Scotland is an important employment and strategic part of our business.

Chair: Thank you very much. We look forward to hearing from you this morning. I am going to pass to Angus MacDonald for the first question.

Q96 **Mr MacDonald:** Our inquiry has taken us to see the Clyde and the Forth, and the amazing shipbuilding sites that you guys are running. The expenditure of the defence industry in Scotland is about a third less than it is in the UK as a whole. Although I cannot overstate how wonderful it is to



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see what you guys have contributed to the central belt, there are two geographic areas that would really benefit: Aberdeen, where we are seeing a lot of jobs being lost; and the more remote areas, such as Inverness and the west coast, where I am from. Can you help us understand what can be done to take the boom in the defence industry to more remote areas?

Mark Stead: We employ about 3,000 people in and around Edinburgh. They are from a whole number of constituencies across Scotland, although there is typically a geographic limit to that. Our supply chain beyond that extends far and wide. I think the furthest north of our suppliers is in Inverness—a small SME, which I will not name—but we stretch far and wide in our supply chain. Even for our Edinburgh business, about 25% of our supply comes from Scotland itself, so we try to feed our Scottish supply chain as effectively as we can.

Part of our role as a prime is to be a gateway for the wider supply chain, and to fly the flag for Scottish industry not just in the UK, but across the world. We absolutely play on a global stage, so it is really important that we stay differentiated, keep investing in research and maintain our world-class capability.

Clearly, to do that, we also need the skills that support it. I am sure skills will be an important theme today anyway, but we need to generate them across the UK, and particularly across Scotland. Of course they exist all over Scotland, not least in the central belt but also in more rural communities.

The supply chain is a really important factor for us in that, because it can extend itself further geographically. Between us, we need to harness better the colleges and the education system that extends far and wide in Scotland, with the funding available and the access and outreach that I know we all undertake, to make sure that we encourage young people into STEM and, hopefully, into engineering to feed our business growth.

Cathy Kane: You are probably aware that we run a number of sites that are distributed more broadly across Scotland; indeed, some are in your constituency. That is largely based on the wonderful geography that we have, which enables us to do some of the sensitive work that we deliver on your behalf. We do operate in those communities. As Mark was just saying, access to STEM, to supply chains and to people who want to go and live in those rather remote regions are things that we continue to work on. For us, we are less distributed in the central belt, and we do work in those more remote regions.

Q97 **Mr MacDonald:** Cathy, do you employ locally, or do you import people to, for example, Benbecula?

Cathy Kane: We do employ local people. Many of our people are very heavily involved with the local community. Some of my colleagues in Benbecula, for example, are also crofters, so they wear multiple hats. They are absolutely local people.



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It is a challenge. I am sure we are going to talk later about STEM and access to the highly skilled roles that we have, and about making sure that we have the pipeline of skills to fill them. But absolutely, it is local people coming and delivering those roles.

Neil Holm: While we are primarily based in and around Glasgow for our main operations, we recruit from across all of Scotland. We have one of the largest early-career intakes. There are currently more than 500 early-career people out of about 5,000 people in the naval ships business. We see applications coming from all over Scotland. We would love for those training in their early careers to stay with us, but we would also love them to go and spread those skills around Scotland.

As part of that, we have a supply chain of around 90 SMEs across the UK; around 49 of those are based in Scotland. One thing that could potentially be really helpful in the new defence growth deal is how you help those SMEs to grow and invest to get started. Once they can get started, they compete on the UK and the world stage to do that. There are plenty of skills all over Scotland, particularly in and around the Aberdeen area, that could be very useful for us.

Q98 **Mr MacDonald:** I am stating the obvious, but one of the problems with the success of your organisation is that it sucks lots of the most talented people we have out of the remote areas. It is obviously much better for us to take the jobs to them. I can see your problem, but it is a problem for us, because we have a massive decline in the population of young people.

Neil Holm: I understand that.

John Howie: There is an issue about proximity to major employment sites. I mention that on the basis of the perception of the sector. It is much easier to get people to work in the sector, whether they are in small companies or seeking employment, when they have lived in and around the axis of the defence sector in Scotland, which has tended to be central belt-orientated. There is an issue we need to address about how people perceive the sector—I guess we will come on to how that starts in the education sector and beyond.

The main way we distribute money into the Scottish economy in a more broad-based way is through our supply chain. We deal with 454 suppliers in Scotland, and 65% of those are small and medium-sized enterprises. The sorts of areas you are talking about have always been good at start-up and scale-up businesses. We know that the MOD wants to spend an additional £2.75 billion with SMEs. We think that primes like Babcock and the other companies represented here have a really important role to play in stimulating that. We launched an SME charter a few weeks ago, which is aimed at finding ways of nurturing SMEs. SMEs have always been a bit wary of large companies. They worry that we will take their best people and their best ideas. What we are trying to do is help the system nurture some of these companies and give them a bit of mentoring and coaching to help them navigate what is quite a complex procurement system in defence.



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There are lots of really good companies away from the central belt. Particularly now, with the way that defence is developing, we are going to see more and more use of what we would call dual-use technology—stuff that was developed in the commercial sector that finds applications in defence. That is where I think companies in more remote parts of Scotland might see more and more opportunities come their way.

Q99 Lillian Jones: This question is for the whole panel, but I will start with John. In the light of concerns highlighted by Lord Robertson and others recently about the pressures on the defence budget, are you seeing evidence that the Government's commitment to increase defence spending is reaching defence firms and supply chains, and, if so, can you give us some examples?

John Howie: We are clearly at a difficult point at the moment. There are three inflection points sitting on top of each other. The first is that, geopolitically, the world is a much-changed place. I do not think any of us expected simultaneous conflicts in the middle east and Europe in our lifetime. That is causing people to think again about what defence is and how it delivers.

We can "blame" Ukraine for the second inflection point in the sense that they have rapidly fast-tracked the development of new low-cost defensive capabilities that make the UK armed forces and the defence industry stop and think about what product development looks like. Do a billion-dollar missile and a £200 drone carry the same effect?

The third inflection point is a result of that: the financial one. The UK finds itself in a position where we all wait with bated breath for the defence investment plan. One main reason for that is that we know that there is a push to spend more money in defence, but because of the issues about changes in technology and in warfighting philosophy, we need to understand where that money is going to be spent and where we as the private sector should invest. I think you are seeing the large primes reorienting themselves around some of these emerging technologies and things like AI, autonomy and uncrewed platforms, but that will not gather full speed until we understand what the scale of the investment from Government will be and where their buying patterns will shift.

Neil Holm: I will primarily speak on behalf of the naval ships business, because we have some great examples there. Probably 10 years ago, when we were first developing the Type 26 frigate, we were expecting that to be primarily for the Royal Navy. It has since been hugely successful. We have exported it to Australia and Canada, and we are working closely with the Government following the down-select of that frigate to Norway. The longevity of investment in that plan is really beginning to pay off. With regard to the changes in funding, we are already primarily on long-term contracts in our business, so we are not expecting to change that, but what we are looking forward to is some real success. Getting Norway over the line and on contract will sustain shipbuilding and defence on the Clyde well into the next decade.



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As part of that, BAE Systems has invested incredibly heavily. We have spent over £300 million in the last two years. You can see that we have changed the Glasgow skyline with the new Janet Harvey Hall, which is part of our huge commitment to the future of this. If you wind back to 10 years ago, this was not a growing industry that people would invest in. People now build their careers around this industry. The applied shipbuilding academy that we built is all about taking the huge experience we have with over 100 years of shipbuilding on the Clyde and giving that to the next generation.

Cathy Kane: Similarly, as Neil just referred to, we have a number of long-term contracts. Some security into the long term is important for the industry. Understanding how we can flex to the changes in demand as they come down the track, and being ready with equipped staff, facilities and capabilities to look for these emerging pressures and changes, is really important to us.

The opportunity to continue to work with Government to ensure that we have access to the long-term vision is really important. My colleague has already talked about things like the strategic defence review and the defence industrial strategy. We look forward to hearing about the DIP as that comes through. That gives us clarity on the long-term strategy, but the enablers for us are having those long-term contracts and relationships, and we are pleased to be able to support a number of joint Government programmes and committees that enable us to hear that at first hand and be able to lean in at the right time to offer that pace and agility when it is needed.

Mark Stead: The first thing I will say is that defence has never been greater in the public mind than it is now, in terms of the escalating conflicts that we see. From a business perspective, we see our capabilities in action day to day now on various fronts. That brings home, to both our people and our planning processes, how important we are and the importance of the symbiosis between Government, industry and user—ensuring we get those men and women in harm's way the capability they need.

We operate on a global scale, and therefore UK defence spending is one aspect of our business but I have never wished us to be over reliant on that. UK defence is an incredibly important critical reference customer and close partner to us, but around 50% of our business is export. That is important to remember: bringing GDP export revenues into the country is incredibly important to pay for what the UK needs. There is a virtuous circle in that regard. The GDP we generate, even from Edinburgh, is around £330 million, so it is significant to the Scottish economy.

That said, let me paraphrase something that Lord Robertson mentioned recently on the defence spending side of things. He talked about the peace dividend not really being a dividend but a promissory note for the future. That is really resonant from an industrial planning and preparedness perspective, and hopefully from a UK policy perspective too; we cannot rest on that dividend. We have to invest to maintain and ideally enhance



defence capability and futureproof it for the threats we see growing around us.

From a defence industry perspective, notionally, I would expect and hope that most significant defence industry sites in the UK are, or should be, becoming building sites in order to grow more capability, be more prepared, and chime with the national security/national resilience mindset that we need to grow. To do that, we need clearer commitments through the defence investment plan, which will give us guidance, directional planning assumptions, access to investment, and those major programmes of record that feed us and our supply chain, but also feed exports, because they are that reference programme as well.

Thankfully, for the most part in Edinburgh we are a little bit of an exception to the rule. As others have said, we enjoy some significant programmes of record, such as the ECRS Mk2 radar on Typhoon and the global combat air programme, which have a line of funding that has moved through the hiatus of the defence investment plan. But we cannot ask for that soon enough, so that we can plan, co-invest and build the skills and capacity that we need for national resilience.

Q100 Lillian Jones: Cathy, QinetiQ reported that delays in domestic orders caused by the strategic defence review and defence industrial strategy slowed growth for the first half of 2025. What was the growth figure for 2025, just so that it is clear in my mind? Do you have the peak growth figure for 2025? Do you expect similar disruption to growth for 2026?

Cathy Kane: I do not have all those numbers in front of me; I can get them to you later. Ultimately, as I was saying before, the opportunity to have a long-term strategic vision so that we can adapt our business to ensure that we are delivering what you need is most helpful to us.

Q101 Dave Doogan: One of the frustrations that defence manufacturers have is the pace of contract award. I think that it is fair to say that Ministers are frustrated by the pace of contract award as well.

I know it is not your part of the business, Mr Stead, but if we cite the new medium-lift helicopter contract—a process that rumbled on for the best part of a decade across two Governments—all other bidders lost patience; Leonardo stood firm, but eventually had to take the gloves off as well. That resulted in the Treasury, rather than the Ministry of Defence, awarding the contract for a very much reduced number of aircraft the Friday before Leonardo's tender expired on the Monday. How would you characterise that process, in terms of stability and respect for those who have put a lot of time, money and effort into bidding on those jobs?

Mark Stead: Frustrating, certainly. As you mentioned, the new medium helicopter is our Yeovil business; that has been a long-running competition and was subsequently our route to a contract award. Not to speak specifically about that example, we could all cite examples where the process has been very long. Sometimes it has let in small tranches of funding as well, which is very inefficient both in terms of us building the delivery engine and the ability to deliver.



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A number of key programmes of record move frustratingly slowly through that, notwithstanding the respect that I have—I can say this as an ex-civil servant—for the Department. I know that the Department has its own challenges in terms of the checks and balances, and the important staff work that has to be done to get approvals over the line.

Nevertheless, the sum total of that is an inefficiency and a risk to our defence industry, particularly where some of those major acquisitions go overseas. It can, and does, hollow out our UK sovereign freedom of action and sovereign industry. That is often a one-way street because we usually cannot get it back once it has gone. The amount that sticks to the ribs in the UK is incredibly important in that equation.

Q102 Dave Doogan: As Mr Stead has indicated, you could all list examples of that—it is probably best that we do not do that now. If we could help the Government and the MOD to move away from the seemingly intractable incapacity to move at pace on contract award, briefly, how would the other three of you suggest they do it?

Cathy Kane: I echo what Mark was saying. There are a number of programmes where it is let in piecemeal fashion rather than looking at the longer-term strategic vision for that programme—so it is projects, rather than programmes. For me, the benefit would be grouping that together, thinking about the efficiencies and effectiveness that we can collectively gather from that and therefore making sure that we deliver the strategic vision but in a more programmatic way, rather than project by project.

Neil Holm: I support the comments already made. I think a close link with the industrial strategy and defence procurement is deeply important. The defence pound is hugely valuable, and it repays substantially both in terms of taxation back to the Exchequer and export. We are a good example of that. It is also about the continuity of those skills and capabilities. One of the reasons we built a skills academy is to regenerate training and skills in and around Glasgow and the Clyde. That is part of the lack of continuity in history on that. A close link between the industrial strategy for the UK and defence procurement will give a huge benefit.

John Howie: There is no doubt that processes grow arms and legs over time. If the National Armaments Director were here, Rupert would say that the procurement process has become unwieldy. We know from the defence industrial strategy that we have also been guilty of applying the process to buy a helicopter to buying relatively small, commoditised items. That one-size-fits-all procurement process has not served us well.

There is another challenge. My colleagues have made the point about the importance of collaboration in defence. For a long time, we have ingrained it into the commercial process in defence that suppliers should often be viewed with suspicion, rather than as a source of collaboration. That makes people wary, and it puts extra checks and balances in the process that probably do not need to be there. I have a great deal of sympathy for the people I deal with in the MOD. Somebody once said to me that in industry it is really simple, because you have a simple set of metrics that



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you have to rely on to run your business. I recognise that the people we deal with in Defence have levels of accountability, not just now, because someone can look at their decisions in five years' time and question them. If I was a civil servant in Defence, I would probably want more than one person signing that bit of paper, to make sure I had strength in numbers.

Ultimately—and our chief exec has made this point a few times—some of it comes down to the difference between policy and process. The MOD has been very, very good. Through changes in Government and changes in leadership at the Department, we reset policies. The policy talks about collaboration and long-term contracts, but it often does not result in a change to the underlying processes. The people in the system that we get frustrated about are actually just delivering the processes that the system requires them to deliver, which could be lowest complying tender or driving international competition. That is what they have to do. As part of the defence reform process, we have to not just set those policies but make sure that the processes and the way we hold the people in Defence to account adapt to reflect that.

Q103 Dave Doogan: Sticking with you, Mr Howie, it seems to me that there is a role for primes in relation to SMEs, and there is a role for the National Armaments Director to direct-award to SMEs. Between those two, it seems that there is probably in Scotland's case some significant low-hanging fruit that we should be accessing, because 2.5% of defence spend in the UK lands with SMEs in Scotland, which is classed as one of 12 regions in the UK, whereas 54% of SME spend lands with the south-east and south-west of England. Some of us think there is a direct relationship between that figure and the proximity to the body within the MOD at Abbey Wood that awards contracts, but that might be wrong. As somebody who has spent a long time dealing with the MOD, how do you think we should try to shift some of the 54% that is concentrated for whatever reason in two regions of the United Kingdom across the nine other regions of the United Kingdom, including Scotland?

John Howie: There is undeniably a relationship between where the MOD spends its money from and where the supply chain evolves. That is no different if you go to Rosyth or Clyde—you will find there is an ecosystem built around places where the cheques get written. I think that is naturally going to change.

I go back to the point I made earlier about the rapid emergence of dual-use technologies. What you are going to see is that technologies that are being developed for the tech sector, oil and gas and renewables are finding their way into the defence sector, and that will naturally start to spread some of that money around the regions.

You are absolutely right in your point about the role of the primes and the role of the MOD. We talk about spending extra money with SMEs, and that is an objective; the mechanisms need some work. What the MOD needs not to do is spend all that extra money with SMEs and simply find that the list of Government-furnished equipment it has to issue to a prime on a contract gets much bigger. That just transfers supply chain risk back into



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the MOD. However, it should on the other hand also note where its primes are buying it. I go back to my SME charter. There is a need to be sure that the primes are creating the right environment to nurture SMEs.

One of the things that has been an issue in the past is that if you are in the MOD, there is a real opportunity to transfer risk to industry. I think for a long time people did not always understand that when you transfer lots of risk to a big complex business like BAE, that risk transfer then cascades down into the supply chain. I have spoken to people who thought, "We assumed you didn't transfer those risks to SMEs," but that is how business manages its risk.

Back to our charter, one of the things that we have been talking to the MOD about is how we make sure that primes bear the risk that is appropriate for them and that the commercial environment that we bring SMEs into does not involve them betting the farm every time they sign a contract.

Q104 Dave Doogan: Mr Holm, the Scottish Government recently invested £9.2 million in BAE in Glasgow. About three quarters of that was for innovation, research and development. Is there anything within that sphere that we can use?

I am conscious that industry and technology are moving quite quickly and not everything that we procure is a physical thing. There are goods, services, technologies, systems, programmes and networks that we procure as well, and sometimes they seem to be a little bit easier to access more locally, subject to competition and compliance. In that innovative space that BAE leads in, what scope is there to increase the flexibility with which we can award contracts to SMEs in Scotland?

Neil Holm: I think there is huge scope. I am literally just back from meeting with Siemens and Hyundai in South Korea, and that conversation was not about how we build ships; those were conversations about the different methods, complex systems, use of AI and all those things that come in. That is going to be the next step for us in the complex ships that we build.

That investment money, and the work that we do with the universities around Scotland and other SMEs, is deeply important, because in reality some people are doing some really clever thinking and speed is going to be the key to everything that we do. How we can leverage some really clever thinking with people who are probably coming with better processes, tools and methodologies using AI and so on will be a key determinant of success going forward, and we are usually positive about that.

Q105 Dave Doogan: Is Scottish Enterprise on board with that outlook?

Neil Holm: We work closely with Scottish Enterprise. Everybody is finding their way in things like AI at the moment. There are challenges around it because of the security constraints on what we do, but there is definitely a

very positive ecosystem, as John was saying, around Scotland, with lots of great innovative technologies that we can work with.

Q106 Mr MacDonald: My question feeds directly into that. There have been a lot of cookie-cutter or more basic jobs, such as welding, done within your business, but research and innovation is where the value added is for Scotland. Can you explain what you have in terms of innovation research centres in Scotland and how you might expand that? We have to be quick, because we have so many questions still to go.

Mark Stead: On the skills and R&D side of things, there is a devolved versus reserved dimension to this. Obviously, there are skills elements, policy elements and the business impact. Not to get political about it, we need an environment that encourages all those things so that the enablers are there when we need to access them to grow.

On the research side of things, historically we have enjoyed about £22 million since 2007 through Scottish Enterprise. That is currently curtailed by the Scottish Government policy position on the basis of the Israeli side of things. We typically add about £4.50 for every £1 invested with us from Scottish Enterprise, so the leverage of that Government investment is really significant, in terms of what we bring and the private sector investment over and above that. Of course, that R&D leads to new products, new exports—which we talked about earlier—new jobs and the sustainment of jobs for the future.

On the skills side of things, we have a huge number of applicants for our apprentice and graduate posts. We cannot create enough apprentice and graduate posts. We have about 100 early-career posts a year in the population, and about 300 in Edinburgh, which is about 12% of our workforce. That is well above the necessary norm. SMEs really struggle with that because they cannot access the apprenticeship funding. That is drawn from the apprenticeship levy at a UK level and passed back through the Barnett formula, but is not delivered fully funded into industry to grow those early-career skills. Of course, there are mid-career skills too—STEM returners, armed forces transferees and so on—and we need to access those too. Fundamentally, that whole machine needs to work from a policy co-ordination and skills perspective so that we are future-proofing the growth opportunity.

Q107 Mr MacDonald: This is not the direct question, but can you elaborate on the stop that the Scottish Government have put on as a result of the Palestine-Israeli thing? Is there any chance of that coming off? How are you getting on with that?

Mark Stead: We have for some time been seeking the implementation guidance for that, and that is now available. I have to say that that the off-ramp for that policy is not clear to industry—it is not clear to me. It is subject to review on a periodic basis, but as of right now it is not clear what the off-ramp will be. Therefore, that hiatus—the moratorium on funding into the Scottish defence industry associated with that—means

that there is a difference south of the border and north of the border in access to that kind of funding.

Q108 Mr MacDonald: Reverting to the research bit, Cathy do you have anything to say about innovation and research centres in Scotland?

Cathy Kane: Yes. We do not have any research innovation in Scotland; however, we have a highly skilled workforce. Research is very much at the core of what QinetiQ does. Indeed, when we were with the MOD, that was a key part of our essence. We worked very closely with DSTL and other Government Departments during that early-stage research. As Mark was just describing, it is a fundamental pillar of our UK economy to ensure that we have that research. It pulls through into innovative products, such as the directed energy weapons programme that we do with Leonardo and others. Making sure it has an end point and is pulled through is key. We are very supportive, and we engage in the research programme.

Mr MacDonald: Thank you. I think the Committee is quite aware of what Babcock and BAE are doing, so I will pass on to my colleague to ask the next question.

Q109 Kirsteen Sullivan: You have all mentioned the skills gap, which is particularly acute when you are looking at advanced manufacturing, welding and fabricating. The Withers review came out some years ago, and there were hopes at the time that the landscape would change off the back of it. Do you think there is sufficient understanding within Government of the skills gaps in the sector?

Mark Stead: I think there is a level of understanding of the gap, but whether there is enough action is a different matter. If I look at it from a pure business case perspective, for me it is absolute common sense—logical sense. Even when you look at the basic level of the tax take from having a skilled worker coming through the business, the return on investment is absolute clear. Skills in defence are generally higher paid and generate significant return to the UK economy, but when you look at the statistics, particularly in Scotland, they are less than 50% planned to train, in the sense that we are underrunning and under-gunning our training in these skills. For us, it tends to be in the areas of things like software, firmware and electronics—some of these higher engineering skills—and we are closely competing with sectors that we never used to compete with, such as pharmaceuticals, oil and gas and all sorts of other sectors that are using engineering skills now.

Engineering is a winner as a career to go into, whether it be in defence or elsewhere, but we as a nation are not supporting that effectively enough. We are not getting enough people into those planned training programmes, and we are not seeing enough of the funding that is levied on early careers returning back to fund the colleges, the universities and the employers. At its heart, to pick up Withers, it has to be employer led and employer-demand led, because we know best what we need now and what we will need in the future. We certainly need more.

Q110 Kirsteen Sullivan: Is it that there is a lack of joined-up thinking and it is



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quite fragmented? Is there no strategic vision for it, or was one set out in Withers but not enacted?

Mark Stead: I think it has not been enacted yet—certainly not fully. There was an acknowledgment of the findings of Withers, and an intent to enact, but we have not seen it play out. Certainly, in terms of the ground truth, we are not seeing the right numbers of people. We are seeing enough applicants, but we are not seeing the right number of places being generated to support our needs for the future.

Of course, it is not just about defence. Engineering, as I say, is multi-sector. We hope that they would enter lots of careers, across lots of engineering disciplines—I say that as an engineer myself. Maybe they will end up in defence and maybe they will not, but fundamentally they will end up with high-skilled, strong career prospects that generate a return for them and a return for the country.

Coming back to the business case perspective, the common-sense business case is absolutely obvious and apparent: we need to be more co-ordinated and invest more strongly and faster in generating those skills for the future.

Cathy Kane: I agree with what Mark has just described. Thinking more broadly, a lot of the skills that we need in defence are STEM-related. I am an engineer too, and I fear that as a society we undervalue the scientific skills. If you ask children, as I have done, what job they want to do, you find that you are competing with other, more attractive opportunities. We need to raise, as a society, the benefits of working in science and engineering. We need to do that all the way through our school system and in our universities and colleges, and encourage them to demonstrate what the great opportunities are for delivering the amazing things that society fundamentally needs. It is a collective societal challenge.

In the defence industry, we have highly skilled roles that take a long time to nurture. You do not just come out of a production line knowing how to do these specialist skills. It is a long-term investment that we put in place in our company, as we need to do in defence, to ensure that we have that pipeline.

We are competing with other markets. I sit on an industry advisory board with UCL, and a lot of the graduates coming off engineering programmes are more attracted to financial jobs where they can transfer their skills, perhaps with higher wages than the defence industry can offer. We are competing on a broader stage, and our role is to demonstrate the value that those skills bring to our defence economy and the exciting and amazing careers that people can have.

Neil Holm: Is it understood and valued? Partly, but there is definitely more to do. That is one of the reasons why in Glasgow we built an applied shipbuilding academy. We have more than 500 people in early careers, and we recruit nearly 200 a year. As part of that, we have to grow and nurture this thing. We actually have a huge number of applicants for the



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roles that we have, so there is a huge pool, but the sustainability of work, of building and of investing, which we can then build out of to do other things, is deeply important. It is a hugely valuable place for the Government to invest.

From a personal point of view, I was in a shipbuilding academy about a month ago. The kids from the school from where I grew up were in it, and every single one came out absolutely buzzing. We do over 2,000 STEM interactions a year, grasping the imagination of the next generation so that this is the sort of thing they want to do. I did engineering in Glasgow, but I moved to England after that. It is great to be back in Glasgow, and it is great that we are building careers in Scotland for the people who are being trained in Scotland.

John Howie: I will pick a short-term issue and then move on to the longer-term and maybe systemic point. We absolutely do have a skills gap; I think everyone understands it. I was at a joint breakfast yesterday talking about this very topic. ADS, the trade body, is monitoring 10,000 live vacancies at the moment in the sector. Going back to my ecosystem thing, if I look around our major employment sites in Scotland, we, like BAE, do not struggle for applicants. This year we will take on probably 150 apprentices, and 3,500 people have applied for those 150 apprenticeships.

When you start to move away from where the defence industry operates, you start to get into the perception issue. There is no doubt that defence has a perception problem. Some of that starts in schools. I think sometimes, ideologically, we teach people that defence is bad and unethical, so trying to recruit people into defence, away from those employment centres, brings with it its own challenges. Our view is that over the next decade, we alone need 3,500 to 4,000 people in Scotland based on normal attrition rates, simply because a whole generation are about to start leaving the workforce.

As my colleagues have said, these are highly paid, highly skilled jobs where the trickle-down benefit into the economy is much greater than it is for some of those less complex roles. Long-term contracts help. At the moment, in Rosyth, we will need to start thinking about whether we take on more apprentices, because the Type 31 frigate programme will come to an end and there is no UK programme yet to follow on behind that. We are working really hard on export programmes because we do not believe that we should just sit and wait for Government handouts, but it is really important for us that we do not bring in early-career workers without the certainty that there is a job at the end of it for them.

On the short-term piece, both we and BAE got some regional headlines about employing foreign workers. I think there is a perception issue—people assume that we bring in workers from the Philippines because they are cheap slave labour. That is absolutely not true. We bring in workers who are paid exactly at the same rates as our UK workers, and we bring them in because there are no UK workers to employ.



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A bit like BAE with its academy, we are bulking up on the apprentices and the graduates we bring in, to try to fill those gaps and persuade people that an apprenticeship to become a welder is a really valuable future career for them. They do not need to go and do a social science degree at university; they can come and do a modern apprenticeship. But in the short term we have to rely on those foreign workers.

Obviously, Brexit brought a challenge to bringing in those workers. That challenge is about to get much worse. The Government are about to change the English language requirement to B2, so we will be trying to bring in welders who have the same level of English as a university lecturer, and it will be massively damaging for the shipbuilding industry in Scotland. We are working with Government just now, with the Minister for Migration, trying to find ways to make that work. We recognise what the Government policy is, but we need to watch out for the law of unintended consequences.

Q111 Kirsteen Sullivan: Picking up on the bit about getting more young people into the sector, you have previously described the current information on the defence workforce requirement in Scotland as “fragmented”. What work have you done to engage with Government to help address or improve understanding of the skills gaps in the sector? I do appreciate, as you mention, that there is a perception issue that has to be challenged as well. What are you doing to make it clearer to young people that this is a good route for them and that there are good long-term career prospects for them?

John Howie: We have done a number of things. One of my other roles is co-chairing the Defence Industrial Joint Council delivery group with the National Armaments Director. Through that, we have a skills and training working group. We are rolling out a programme called Destination Defence, which is all about trying to shift perceptions about the defence sector and the exciting jobs available. There is a whole series of industry-wide initiatives that everyone has bought into.

As for us specifically, we have done two things that we are really proud of to try to move the dial. First, we have launched a programme for what we call production support operatives: effectively, we target people who are currently not in education, employment or training to bring them into or back into the workforce. So far, we have brought 300 people into our Rosyth business through that route. They are what we might traditionally have called semi-skilled roles, but they open up a career path for people who then want to move on. We have an equivalent programme now rolling out on the submarine base on the Clyde. Those are two programmes that are trying to do something different.

The other thing that has been really successful for us is launching a pre-apprenticeship programme in Argyll and Bute, targeting schoolchildren aged between 14 and 16, and aiming to give them a taste of the industry in the hope that they would then sign up to a modern apprenticeship. That has been really successful: nearly 92% of the people who have gone



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through that programme went on to apply for and get modern apprenticeships with us.

What we cannot do is just sit and do the traditional things of fighting it out with other sectors to see who can pay the most and who has the most attractive employment conditions. We have to find ways of bringing people into the sector who would otherwise not have considered a job in defence.

I have a final point to make; I know that the Government are painfully aware of this. In the further and higher education sectors, it costs way more to train an engineer than to put somebody through a social science degree or qualification. It often costs way more than the available funding allows. Universities and colleges are always trying to strike that balance. Industry is leaning in more, to try to provide other avenues for those people to get into the workforce rather than just having to rely on traditional education programmes.

Q112 Kirsteen Sullivan: Do you think that both the UK and Scottish Governments are alive to these issues and working on them?

John Howie: Yes. In fact, at Scottish Government level, we have had discussions recently with both the Deputy First Minister and the First Minister. It is a topic on which we all agree that there is a skills challenge, and that the economic impact of those jobs is disproportionately high. All the economic assessments we do show the trickle-down effect. We employ 5,000 people in Scotland, but we support 10,500 jobs because of the impact on the wider economy, the supply chain, the indirect spend and local businesses. These jobs are really valuable, and the benefit to the Scottish economy of creating more jobs in defence is therefore disproportionately high.

Q113 Mr MacDonald: Mr Howie, in the highlands we have half the number of computer teachers we need. There is a real lack of teaching in mathematics, physics and so on. The University of the Highlands and Islands, which is key for us, does not teach anything to do with STEM on its west coast campuses. Do you get a feeling that the Scottish Government are taking seriously the necessity of educating children at school in engineering and related subjects?

John Howie: All I can say is that at a national policy level, I think they get it. I guess that when it starts to trickle down into individual establishments, it will vary. We work most closely with Strathclyde University. In fact, part of the funding that has been coming out of the defence growth deal is for the Arrol Gibb innovation campus at Rosyth, which is a joint operation between us and Strathclyde on advanced manufacturing techniques. That is a university that really understands the need to be aligned with business.

I cannot personally speak for the University of the Highlands and Islands. Lots of universities and colleges do not really understand the importance of those industrial links and the need to provide courses that match up with industry's demand. I probably could not and should not comment on that specific example, but I do not detect that anyone is trying to fight

against us. It is just about whether we have a robust set of initiatives that capture everyone. It sounds as if there is untapped potential there.

Q114 Dave Doogan: I am pleased that I have an engineering qualification to back up my humanities degree. Mr Howie, it is a shared endeavour to get people attracted to engineering roles, particularly defence engineering roles, in this context. It seems to me that we can encourage people to do this course or that course, or this career or that career, but they would be much more willing and ambitious to choose those paths if they had a better understanding of the levels of remuneration that are enjoyed.

There is still a deeply flawed perception of what engineering means nowadays. When people visualise engineering, they visualise something from about 70 years ago that is completely unrelated to how we work today. Government, industry and others have a role to play. It jars with our culture—we do not talk about money—but we need to be really clear. Can industry help with that? I used to be very familiar with average remuneration at Leonardo, and it is astonishing how it is an outlier. Nobody knows this. Why is that?

John Howie: In Scotland we have 5,500 employees; last year our wage bill was £260 million. I will leave you to do the arithmetic on what that is as an average, but for Argyll and Bute and for Fife we pay about 50% more than the regional average in salary terms. That is before you take account of the other knock-on benefits.

I think that because we spend Government money in the round, industry does not like to look like it is splashing the cash, as it were. Government contracts tend to be very tight. We are certainly not making massive amounts of money on the contracts that we operate—you will be aware of some of that—so we tend not to focus on the remuneration element. We tend to focus much more on, if you like, the value-add, the achievement, the complexity, the interest levels in the jobs.

We use things like two really great organisations based in Scotland that I should have mentioned earlier: Primary Engineer and Secondary Engineer. They go into schools and teach schoolchildren not just about the importance of STEM careers but about why they are fun, about why they are interesting and about the projects that people can get involved in. That is why when people join the companies that you see around the table, the attrition rates are really low. People get into the industry, it gets in their bloodstream and they do not tend to leave. They sometimes move between companies, but they do not often leave the sector.

Industry recognises that it has more to do. It might have been Neil that said it—we fundamentally understand that the skills challenge is ours to fix. We are looking for Government to help to provide us with a platform or an environment where that is an easier task, rather than a harder one.

Q115 Chair: Mr Howie, could I slightly play devil's advocate with you, because I am really interested in this area? We want to raise awareness of STEM and the importance of STEM; I think we all understand that. If you typically have 3,000 applicants for 150 apprenticeships, does that suggest that



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there is actually quite a lot of interest out there? Maybe we have to look at how we tap or channel that interest.

John Howie: Of those 3,500 applications, I would guess that 95% come from within our travel-to-work area. The beauty of the east, the west and the central belt is that we have large employment areas. In Faslane, the vast majority of the people we recruit are in Argyll and Bute, West Dunbartonshire and the Greenock or Port Glasgow area. They are traditional engineering and shipbuilding areas. The same is true of Fife: the people are predominantly from Fife and the surrounding areas. When you go beyond that, it becomes less obvious.

When preparing for this session, I was thinking about one of the skills initiatives—the idea of an apprentice and graduate clearing system. That is one of the things the industry is looking at. We will get 3,500 applications for 150 jobs. That doesn't mean that the other 3,000 are poor-quality applicants; we just do not have space for them, but we can pass those applications on to other companies that might be delighted to get candidates of that calibre.

We are oversubscribed with apprentices—BAE and others are in the same camp—SMEs often don't have the resources to run the promotional campaigns, searches and assessment centres we can. I think that the industry is starting to get its mind around helping to position some of these resources and setting up passport schemes, so that people can move from company to company more easily. I think that there is quite a lot going on, but a lot of it hasn't borne fruit yet.

Q116 **Chair:** We heard evidence from the Society of Maritime Industries, which cited competition from energy and construction as one of the barriers that you have in defence. Is there a need for closer collaboration between these sectors? For example, should the passport you referred to be not just a defence passport but perhaps an engineering skills passport, or something of that type? I will put that to Mr Stead first.

Mark Stead: There is scope for that. Some bodies, such as Scottish Engineering, look cross-sector in terms of where the skills are coming from and whether the training feeds are sufficient for the skills in the round, whichever sector they may be entering. Part of it links to the perception problem as well: defence has its stigmas, particularly among younger generations who receive their news from social media and influencers and so on. That is a factor that we are constantly challenging.

Where other sectors maybe do not have some of those barriers we must rise up and make sure that there is policy coherence that supports young people taking engineering pathways. There is also manufacturing and the other supporting skillsets that go alongside all our businesses that are not engineering, which are equally important to generating the output we do. That allows them to navigate those pathways, access the opportunities and not be discouraged or undermined in any way in terms of following those pathways, even if they might be z-paths where they are changing between sectors as they go.



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Clearly, we want to retain these people in the UK—and ideally in Scotland, if we can. That means having geographically dispersed opportunities but also having the salaries and the energy that makes these exciting and interesting jobs. As my colleagues said earlier, that is an important part of the equation, especially for defence, because people want to make a difference. When I speak with young people, as others here do, they are incredibly proud of being in the defence sector and they want to shout about it from the rooftops. We can't always shout from the rooftops about what we do, but we also do not want the policy fracturing to discourage that either.

Now more than ever, the message needs to be strong that defence is a really exciting career. It can lead to careers in other sectors as well, because there is a lot of cross-pollination. Fundamentally, I think that the jobs are there for everyone to find when navigating an engineering career path in Scotland.

Q117 Chair: I have to declare a slight interest in that part of BAE is in my Glasgow West constituency, so I have visited it on a number of occasions—the Committee has visited it, too. One of the things that impressed me about the current apprentices who I have spoken to in different places and on different occasions is that they understood, because BAE told them, the importance of their roles and the geopolitical situation. I had an interesting conversation with one young man who understood that better than I did, and I thought I was interested in these things.

To me, it seems that they are the ideal ambassadors not just for the roles that they do in terms of the engineering skills and their importance, but for understanding their role in the wider picture of the country, the defence of the nation and these high-level enterprises. Very briefly, is that something that all your companies regularly do?

Mark Stead: I think that we all operate some sort of STEM outreach and other factors. Collectively, we often have our early careers people at the forefront of that, often with end users at the same time, because—as you say—it is an incredibly powerful message. That is because they are clearly very relatable in age and experience to the young people who we want to see entering the profession.

Neil Holm: Speaking for our ships business, the purpose of what we do is deeply important. In reality, these are tough jobs that do incredible things. It gives us that extra 10% where people get out of bed early in the morning to come and build ships with us. However, there are a couple of stigmas. There are stigmas around defence—which are well discussed. There is also a stigma about what we do in terms of it being some sort of traditional Brunelian engineering with people bashing in rivets. We build some of the most technologically advanced products—not just ships, but products—on the planet.

We must get that vision to people of the purpose of what they do in defending the UK from Russian submarines in the North Atlantic and



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providing defence across the globe, but also the huge technological advances. From my personal point of view, I have led railway and aerospace programmes—and I have come back to shipbuilding because it is such a challenging and interesting thing to do. Getting that across to the next generation is important. The apprentices are the people who will change our culture from something more traditional to really world-class, high-technology shipbuilding.

John Howie: One of our really successful export programmes is that we are supplying the vast majority of missile tubes for the US submarine programme. That is based on a huge investment in automation and robotics. It also allowed us to—at the point where the oil and gas sector in Aberdeen was in a downturn—recognise that there were companies right across the north-east who had some really talented people who understood how to work in high-integrity manufacturing environments. We deliberately set some of our recruitment programmes to bring some of those people in. The risk was that they would not just leave the oil and gas sector, but leave the country and go somewhere else.

Wearing one of my industry hats, I should say that I am the president of the Society of Maritime Industries, so I absolutely agree with what they said. We live in a country where I think it is still true today that more engineering graduates join financial services organisations than engineering companies. Between us all—Government and industry—we have to find ways of turning that around. When we get people into the industry, they really get it; it is getting them in the first place. There are places where that works well and places where it does not.

One thing that has been a growing issue in the last year and a half has been the extent to which it is hard for defence companies to attend trade fairs at universities, not because the university themselves object to it, but there are always factions in the university that sabotage it—you get lots of posters about killing babies and so on. That is not just unpleasant for the staff who get heckled when they are there; it rubs off on the people who work for our companies who understand why what we do is important, but it means that they might not want to talk about it too much outside.

Q118 Lillian Jones: On trying to attract talent and young people into the defence sector in Scotland, if there was better awareness among the general public across the UK of the actual threats to this country by our aggressors—such as Putin and so on—would people understand the need to engage and enter the defence industry? Do you think that the Government should do more to raise that awareness?

John Howie: I would give two examples. First, in Norway they have already handed out leaflets to the public about the need to be ready to go to war, whereas in the UK we still think that war is quite a long way away geographically. The second example that really struck home is this. I was talking to a Minister in Poland, which is moving towards having the highest defence budget as a percentage of GDP in Europe, at 4.7%. I asked him how he justified with the public spending so much of their Government money on defence. He said, "It is really simple. You in the UK are worrying

about whether you go to war or not. We already are.” The Polish mindset is, “We are already at war with Russia.” It is just not a traditional enemy-at-the-gate war at the moment. I thought that was an interesting perspective.

If you live your life in the UK, it is easy to put defence to the back of your mind and not worry about whether a Russian submarine is operating in your coastal waters, but I fear that it really would not take much to change that. So yes, I would absolutely agree with you.

Mark Stead: There is something in the language as well. The term “defence” sometimes carries a stigma, as we said earlier. A national resilience conversation has to happen, and I think it is starting, but it is going to gather pace and needs to, because people, at an individual, local and societal level, need to feel and understand what resilience really means. I think we have lost the recipe on that as a nation.

There is policy support that can come to that, but I see the reality on the ground. For instance, a year ago we were advertising on Edinburgh trams for recruits and Edinburgh council stopped us and removed that ability, because we were part of the defence industry. We have blockade protests. We have had five or six now, where the police will prioritise keeping the peace over enabling the opening for 3,000 people to go to work to support critical operations right now.

We need a change in prioritisation and focus, because those things combined will align policy with societal attitude much more strongly towards us as a nation protecting ourselves, enabling and future-proofing that protection. The time to do that is now. We are late to the party. We need to get on with it.

Q119 Kirsteen Sullivan: To further expand on the proposal for a defence skills passport, how do you think that could address the skills gap?

Mark Stead: A defence skills passport is a useful initiative. It offers people a fast path and recognition of their relevant skills—whether they have been in the armed forces or other relevant industries—so that they can access defence opportunities quickly, and they are known to us. That is part of the equation—it makes it easier for them to be known to us and access us through the right paths.

Big defence companies can be quite confusing, too. It is part of our job to make that easier to navigate, but how to access and where to see opportunities and who to speak with can be quite confusing. The defence skills passport initiative, and other things, such as the technical colleges and the funding and research allocations, all combine to fundamentally make it easier for people with relevant skills to find their way to our door. That can only help.

Cathy Kane: I agree with that. In terms of broader defence skills, we need to look more broadly than some of the traditional manufacturing capabilities and skills. We need to look to some of these new advanced skills, such as digital skills and data analytics. In our particular area, we

have lots of skills in acoustics, magnetics, radio frequency—very highly specialised, highly skilled roles that we operate in. Having the opportunity to broaden the defence skills passport to encapsulate some of those would be really beneficial.

Building on the previous conversation, we should highlight that these are really exciting and interesting careers that people can have, and that the defence industry, while there might be a lot of people in it, is quite a small community. We all pop up in different companies through time. Recognising the value of the skills that you have learned as you move through the industry, and ensuring that people are retained in the industry, is a really important part of this. As I mentioned earlier, some of these skills are very specific to the sensitive work that we collectively do, and it is really important to ensure that we do not lose them from the industry. I would very much support extending the defence skills passport to broaden skills capabilities, enabling us to use it across industry and make sure that we retain them across the enterprise.

Neil Holm: We very much support it in principle, but how it would work and what purpose it would have will be key. For instance, will the passport allow easy movement of people across defence because of security clearances and the skills that go with it?

However, if it constrained the people coming into defence, that may need to be looked at. A lot of our skills are very transferable, and we take people from wider construction, transportation and energy backgrounds as well. Looking at how that can be a real turbocharger for growth, around core skills in defence that can have a wider benefit to the economy, would be useful.

Q120 Kirsteen Sullivan: On that point, how do you envisage it sitting alongside the energy skills passport? We have identified that the same core skills are lacking across sectors.

Neil Holm: Very much so. I ran major railway transportation programmes around the TransPennine route upgrade before I came back to BAE Systems, and a huge number of the skills, particularly in trades, are absolutely transferable. When looking at these two or three different types of passports, it would be really helpful to have clarity that a type of skill in one passport is comparable to another.

John Howie: I would probably say four things. First, a real value of having a defence skills passport is keeping people who are already in the sector in it, so that they do not migrate elsewhere.

Secondly, there is the role of veterans. We are the largest employer of veterans in the UK, and they bring valuable skills that they learned in the armed forces. Giving them an easy route into industry might actually help retention, because they can stay in the Navy or the Army a bit longer, knowing that they have a secure job to go to in industry. It also helps with the concept of zig-zag careers. What is to stop someone coming out of the armed forces, going into Leonardo for two years, going back into the



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military and taking those industrial skills with them, and then going back into industry later? It will help with that.

As it is envisaged, it should cover adjacent sectors and their ability to bring people in and ease migration, but I agree with Neil that you have to watch that we do not end up with death by a thousand well-intentioned initiatives and ensure that these things can work in harmony. That takes me to my fourth point: if people do leave the sector, we want them to see the light and come back in, as Neil did. It is important to make it easier for them to come back into the industry.

Q121 Kirsteen Sullivan: You raise an important point about veterans. We have all heard about the challenges that a lot of them face when transitioning to civilian life, one of which may be with finding other employment opportunities. Their having a role in this might make that transition a lot easier and ensure that their valuable skills are not lost from the sector.

To go back to the perception issue, ADS Scotland explained to this Committee how public perception is impacting operations and recruitment for many SMEs—I think you have all mentioned that this morning. However, you have also said that you continue to see huge demand for available roles. How is the perception issue manifesting itself as a challenge in your operations and recruitment?

Mark Stead: The SME supply chain feels this even harder than we do, perhaps. If you are looking at starting a small business—or just at recruiting a handful of people to do something specialist—and you do that in defence, and could therefore suffer from the stigma associated with that, such as your site potentially being smashed up, chances are that you may choose to work in a different sector. That is why the perception factor is really important.

As I said, the people who work for us are fiercely proud of the difference that they make every day, and I am humbled by that all the time. But they do not often feel they can shout about it; clearly, there are some reasons for that, sometimes for security purposes. However, we need more UK nationals. It is not work that we can do overseas or farm out, even for people to do from home necessarily. Often, they need to be on secure sites to do the work we do, which also attracts a level of attention.

Fundamentally, if I look at a comparator, for instance the US—let us ignore the current politics around all of that—the US defence industry has a huge level of pride, not just in itself, but in the communities it supports and serves. It staunchly supports the defence industry in and around it.

We do not quite have that yet in the UK, but there is a real opportunity through Government, industry and academia working together with local and regional governments to bring that to the table—how important defence is, both from an economic and national resilience standpoint. We can then turn the tide on that to counter some of those perceptions. That will have very real effects on the choices that people and small businesses make as well.



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Cathy Kane: I will pick up on Mark's comment about having people from the UK with the appropriate ability to get security clearance. I mentioned that I sit on an industry board with UCL, and a vast number of the students on the course come from overseas countries. Therefore, for us as a defence industry, being able to pull in people coming off those courses and bring them into our industry is a challenge, because we work on sensitive programmes.

Encouraging people in the UK to continue with those professional careers in STEM subjects, which we have already talked about, is really key. It is about helping them to see the attractive careers in defence that are available. There is something about perception, as Mark was reflecting on, whereby we need to help people see that what we are doing is important for us as a country and for Scotland as a region, and that it underpins roles and our communities.

To reflect on some of the sites we have the privilege to work in, we have people who are very proud of the work they do and very keen to play a role in society. For us, retaining those skills in those communities becomes a challenge. More broadly, it is about things such as the appropriate infrastructure for people living in those remote regions—making sure that they have the basics, such as access to nearby hospitals and appropriate schools for their families.

Those highly skilled roles have a broader implication. How do we attract people to them in the first place? How do we retain them once they are there? How do we ensure that the infrastructure around them supports them operating in these remote places?

Neil Holm: It is very multi-dimensional. First, it is about the morale among our workforce. What we do is incredibly important, but if there is a stigma around what people do, maybe they are not as proud of it as they could be.

I would also like to talk about diversity. We operate in hugely diverse areas of Scotland, particularly in and around Glasgow. While we have been working extremely hard and have been very successful in increasing the diversity of our workforce, we do not yet absolutely reflect the diversity of some of the communities we work in. I think in part that could be down to that stigma. Pushing really hard to say that this is a really important thing for the success and defence of the country will make a difference.

Q122 **Kirsteen Sullivan:** Do you think, particularly on these very traditional sites such as Glasgow, that there is a hangover from what the Glasgow shipyards used to be like? Maybe those perceptions endure and put off younger people, women and those from different ethnic communities.

Neil Holm: There is definitely a perception that this is a really traditional industry, that we do steel bashing—there is quite a bit of steel involved in the products we make. At the same time, these are really complex, high-technology jobs that are very fulfilling for people. When people come to



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see it—we did some 20,000 STEM engagements last year—they absolutely light up. But it is only at that point.

I had my kids at a family day about six months ago and they were wide-eyed the whole time, but I think we see this as traditional Clyde shipbuilding, which is not what it is any more. We have robotics, and Babcock has invested hugely in that as well. We do a huge amount of engineering. The system integration and complexities are massive. The more we can do to show that this is a modern industry, with modern, sustainable jobs that can be transferable to other industries and get people great careers, the better.

Q123 Kirsteen Sullivan: Yes, I think key to that is getting people in the door to see it. Certainly when I visited BAE and Babcock, it was nothing like what I thought it was going to be—not at all. That definitely changed any unconscious perceptions that I had.

John Howie: You made a valid point that we do not struggle to recruit people generally, but to go back to Neil's example, we are very mindful that we are in an industry that is still broadly male dominated and has some perception issues.

As an employer, we have done a lot to modify our employment policies to make it easier for women to join the company and, more importantly, to stay once they get there. Companies often fail because their employment policies do not really reflect the fact that women tend to be primary carers for children, parents and so on. Some of the flexible working policies and maternity policies are making it easier for women to come and work for us and to stay.

We have specialist groups, one of which I chair, to look at how we support people with neurodiversity and people of different ethnicities. Again, because we are historically a predominantly white, middle-aged male population by stereotype, it is easy to have policies and cultural things that do not actually work for other people, and for it to be completely unintentional.

Someone else made this point. The place where the perception thing really hits is in the role of small and medium-sized companies. I have been involved in work with DBT and the Treasury to look at how the defence industry is financed. Today, some people find landlords who will not rent property to defence companies. There are challenger banks that will not give employees of defence companies a bank account. We can sit and say, "Look, there is no ethics issue with defence. Defence is a mandate from a democratically elected Government, and if the Government say it is important, it is not only ethical but entirely legal." But when the bank will not give people a bank account, that must rub off on them and make them a bit twitchy.

It is very different between the UK and the US. I have spoken to investment managers in the US who say that they have a patriotic duty to invest in defence because the armed forces are an extension of the



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country, and I have spoken to people in the UK who almost look with distaste at the idea that we might be creating weapons of mass destruction. There is a cultural thing that we have to get past, and some of it is on the Government and some is on industry and individual employers.

Q124 Kirsteen Sullivan: Earlier in the session, you mentioned Destination Defence. Do you think that is enough to change it?

John Howie: I think it will help. There is already a running initiative called Destination Nuclear, and it is the same idea of recognising that people are not naturally inclined to go and work in the nuclear sector, either in defence or in civil. A number of prominent companies—ourselves, EDF and others—invested directly in helping to promote the nuclear sector. It did drive up the number of people applying for jobs in the sector, because often they were just not aware that they existed or of what they did.

Shipbuilding has a legacy of people with oily boiler suits riveting things, and Destination Defence will help to explain the fact that these are highly skilled jobs that use the latest technology. They are perhaps not at the bleeding edge of technology, but they are certainly at the bleeding edge of technology application.

Neil Holm: The technology side is hugely important. I come back to John's point about how we can genuinely understand the levels of technology and innovation that go into what we do. In doing that, I think it will be a far more attractive place for people to come.

Cathy Kane: My colleagues have said most of the relevant stuff.

Mark Stead: As I said, I think it is true of all our companies here that we do genuinely world-leading things, which are very differentiated globally. We exist in a global market as well, and that means that the work that our people do is exciting, fulfilling and makes a difference. They can see the end effect, of course, at the strategic level, as well as day to day in operations that are happening right here, right now. Therefore, I think there is strong connectivity with what we do and our place in the world. We punch well above our weight in that, but we need to convey that more strongly and more coherently, as a nation, to the people we need in the future.

Q125 Douglas McAllister: In your evidence this morning, you all advised that demand for apprenticeships far exceeds supply. We hear that as a Committee when we visit and get to meet your apprentices. We hear that thousands apply and that is whittled down to the lucky hundreds, so clearly apprenticeships are highly prized by our young people. My constituency is West Dunbartonshire, and school leavers and college pupils are desperate for apprenticeships in the primes. We have Faslane, Scotstoun and Govan of course, so we understand the strong demand for defence apprenticeships. We also heard from you this morning that there is no shortage of jobs for those who are qualified, so my question to you really is: what prevents you as an industry from expanding your



apprenticeship programmes?

John Howie: It is really simple: the need for long-term contracts. As a matter of policy, it is never a good thing to take someone on, put them through an apprenticeship but then not offer them a job at the end of it.

When you look at the demographics of the manufacturing workforce in the UK, in an ideal world, in partnership with the MOD, I think we would be recruiting way more apprentices than we can, but as I said, if you look at the Rosyth example, theoretically by the time the fifth Type 31 is finished, the demand tails off. Hopefully, we will fix that with some export orders, but I think that as a nation, if we want to stimulate the next generation of the workforce, we have to do it in partnership between Government and industry, so that we can bring people in with the certainty that there will be long-term, secure jobs there for them, which can be funded. Ultimately, when we bring in apprentices, they cost money in the early years, before they are able to contribute to the business, so they are an expense as well as an asset. That is the part where we probably need to do more together.

Neil Holm: From our point of view, I have three points to make. I absolutely agree with John that sustainable throughput through generations is one of the key things. We are in a real bathtub of experience, where we have quite a lot of people in their later career retiring, and we have a really young demographic now—five years ago, that was not the case—but in the middle, we have a gap. That is because of the lack of sustained investment and funding historically.

I think we are going about as fast as we can on early careers. We have about or just over 500 in the system now, out of 5,000. What we have found is that, although we would like to go faster, there are not enough experienced people to look after, mentor and train them. Obviously, they get their apprenticeship, but they do on-the-job training as well. There is opportunity—we have capacity to train more people and, potentially, for those to go to SMEs as well in the more specialist-type of skills that we train in our academy, as opposed to in the colleges, which we partner with. Obviously, however, that would need a level of funding, basically to over-train and then support SMEs with that.

I think there is huge opportunity there. We are going at pace. It is challenging to regenerate capability after a period of under-investment, but we are positive about that. As John said as well, it is absolutely dependent on long-term sustainable work going through our capabilities.

Cathy Kane: I will probably sound like a broken record. I am going to say the same thing. The key here is having that long-term visibility of the work and of the pipeline. We engage with apprentices and early careers, and we are proud of the work that we do there, but fundamentally you cannot bring somebody in without knowing that there is going to be work for them three, five or 10 years down the line. For us, it is about the long-term pipeline of opportunities.



Mark Stead: It is similar with us. We cannot completely flood our workforce with early careers, because there is a training burden, as others have said. There is a funding need; the value return and experience that come over time need to be earned in that process. There is a natural limit to it. There are a lot of applicants, but we clearly need more places. We have a natural limit on that. Not all of them are funded—we create our own self-funded ones—but throughout the broader defence enterprise, and in engineering in general, we need more to be created so that there are more entry points into the career pathway, as we touched on earlier. That requires coherence. It requires a level of funding that recycles in, so that the benefits that ultimately come from the value that those individuals return to the economy are reinvested in future skills as well. But there is a natural limit.

Q126 **Douglas McAllister:** Thank you. Following on from that, the number of modern apprenticeships in Scotland fell last year to its lowest point in Scotland since the pandemic. Most responsibility for apprenticeships is devolved, but both Governments have their roles. Colleges Scotland called for more apprenticeships against a backdrop of pressure on Scottish college funding. It argued that Scottish Government contribution rates for apprenticeships have been static for years. What more do you think the UK Government can do to help that situation? For example, do you think that DTECs should be encouraged?

Mark Stead: Obviously, things like the defence growth deal and the skills strategy offer some funding opportunities to create colleges, particularly in a geographically dispersed way, to draw in more people. I would certainly encourage that. It offers some more opportunities in terms of those pathways. As for the coherence between UK and Scottish policy stances, this is where defence can be a bit of an idiosyncrasy, with the defence spending, big programmes and infrastructure versus the skills enablers and other factors. Of course, one is reserved and the other is devolved, and therefore the Scotland Office and Scotland's presence in Westminster and Holyrood can be and needs to be more joined up on that.

There is also a question of where the levers that flow back are. Given aspects of the Barnett formula, it is quite open in terms of where the payback and obligations are. It is absolutely in the wheelhouse of the Scottish Government to decide where they spend that money, but there is a business case, in logical terms, for spending it on these skills. If there is UK funding—through things like defence growth deals and so on—that can be additive to that, it will create a positive environment for feeding that.

Looking through another lens, if, from Westminster, policy decisions about where R&D is spent and funding is allocated are seen to be being combated in different ways by the devolved Government, that makes for a much more difficult conversation. There definitely needs to be closer co-ordination and alignment. National resilience and the global threat environment arguably should energise and catalyse a sensible conversation around that, for young people in the future and for society as a whole, so we get the capabilities we need for the nation.



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Cathy Kane: To build on that, I reflected earlier that the skills that we need are highly specialised. If we wish to retain those capabilities in Scotland, and particularly if I think about the sites that we operate in—I already mentioned that some of those are in disparate places—we need to ensure that the UK as a whole recognises that the geography of these sites is particularly significant for our UK capability and our national security. Ensuring that we have the appropriate infrastructure to retain capabilities in these specific geographies is a key underpin for me.

It is not all about ploughing money into defence per se; it is about those broader capabilities we need. Do we have, as I mentioned earlier, the appropriate infrastructure, the schools and the hospitals—the things that you might take for granted in the central belt—available to people, so that we can encourage them to go and live in those communities and recognise that they have all the fundamental things for them to grow, develop, have families and become part of the community? These are highly specialised skills in often remote regions, and we need to ensure that people have everything they need to thrive in those areas.

Neil Holm: To add to those points, Scotland is going through a generational step change in investment. We have talked about defence today, but when you look at the work that SSE is doing on renewables and power transmission, that will need these types of skills that we also share across the whole of Scotland, which benefit not just Scotland but the whole of the UK. We need real alignment across the whole of the UK on what is required in the future to deliver some really challenging projects. I speak to some of our friends at SSE, and they have equal challenges on what are really important renewables projects. That level of alignment will help us all to deliver jobs in Scotland, and local jobs so that people do not have to travel all over the UK or beyond to get to them.

John Howie: The importance of the two potential DTECs in Scotland—one in the east and one in the west—cannot be overstated. There is huge demand there. We know from the Scottish Government's budget for the next fiscal year that they are budgeting for 25,000 modern apprenticeships, and there is an extra £70 million going into the college sector. The general feedback when you talk to university and college principals is, "Great, but it won't actually touch the sides." I guess like all facets of the environment, Government funding is not able to keep pace with demand. The demand coming from the economy is outstripping the Government's ability to fund those early years careers. In the early part of an apprenticeship, there are costs before they become a genuine asset, because you are funding the training budget before they can then move into the workplace.

I don't think there is an easy way to solve the problem, other than by going back to what I said before: with the right stable environment, industry can be bold. We have just under 500 apprentices in Scotland, so there are companies out there like all the companies here that are trying to do their bit, but we need long-term certainty, and we need the

Government to make sure that they put the enabling programmes in place.

Q127 Douglas McAllister: I think you have all touched on the apprenticeship levy and explained to us that, although it is UK-wide, it operates differently in Scotland in that employers in Scotland cannot access it directly like they can in England, and the Barnett consequential is controlled by the Scottish Government, who do not always routinely allocate back into the defence industry, as I understand it. Do you think that that has to be reformed to make it work in Scotland?

John Howie: All I would say is that, in years gone by, Babcock was the UK's largest vocational training provider. We sold all those businesses.

Neil Holm: All I can talk about is our apprenticeship scheme. It has support from Skills Development Scotland, but how we maintain that and make sure that it is absolutely aligned is very important.

Cathy Kane: I agree. Fundamentally, we are all here collectively trying to ensure that we have the right skills for the future. There are multiple pathways to getting those in and ensuring that all the policies are aligned to give us the greatest chance of success—that has to be an advantage.

Mark Stead: I have commented on this already but, constitution and policy aside, I would say that, morally, the levy is there to return directly that value back to growing the next wave of those skills. That should be honoured through whatever mechanisms necessary. It should also be honoured because it makes absolute business sense to do it, because the value generated from it in GDP contribution is self-evident.

Q128 Dave Doogan: I think we all want to see as many people enter engineering and defence engineering as possible. It is probably helpful to point out that the latest figures for Scotland are that 95% of 18 to 24-year-olds are in work, education or training. The idea that there are legions of people who are waiting for a defence apprenticeship but cannot get one probably bears more careful examination in terms of why that is.

I would suggest that it is not just about new entrants. Particularly on the shipbuilding side, if I can focus on that, people my age remember people getting put out of work in Govan regularly when contracts came and went. That has a lasting tail. Over and above that, we used to have a shipbuilding tsar and a shipbuilding pipeline. I have not heard much about that recently, either, from the Government. I think many people were surprised at the award of fleet solid support to a Spanish company, albeit with a PO box in London and using UK yards for some of it.

If we could turn the clock back to the early 1980s and there was a drumbeat of orders going through Govan and Scotstoun, and people who started an apprenticeship in 1982 got to see a full-term career without getting laid off, there would be a very different skills dynamic now among people my age and 10 years older who would never have had to leave the industry to go somewhere else. If you look at Type 23, which is on its knees—Type 31 and Type 26 are not coming right at the back of that—



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there are operational reasons why that is really bad government, but on a skills level, this thudding, clunking, grudging allocation of orders at the last minute, like NMH but also on ships, has a detrimental effect on skills and the desirability of a career in defence. Am I wrong?

Neil Holm: I can answer for shipbuilding. When I talk about a bathtub, that is exactly what we see. We had a large cadre of experienced people who had come up through Type 23 and Type 45 and then, to some extent, finished their careers on the aircraft carrier programme, and then we have a bathtub in the middle, where we have really quite a high demographic now. Our predominant demographic now is people in their earlier careers and not in their later careers.

As I have said, the alignment between industrial strategy and defence procurement is deeply important, because what then happens is what we are beginning to see with BAE Systems, Babcock and the other defence companies: our products are in great demand around the world, so you get much more back for what you invested in the first place. There is definitely more to do, and that is a whole-enterprise question, to sustain and then really drive the value of those initial investments.

Q129 Mr MacDonald: We have touched on so many things in the different questions that have come up. I was going to talk about the reliance on overseas recruitment, but I do not think we need to go back there. I was also going to ask you, if you were sat in front of the Education Minister, what skills you would ask them to concentrate on, but I think we have covered that, too.

I am going to ask a very specific question about the defence technical excellence colleges. Basically, £10 million of the DGD funding will be used to support the creation of two defence technical excellence colleges if the Scottish Government provide match funding. Is that going to happen? Are the Scottish Government going to provide match funding? Do you know?

John Howie: We hope so. I think it would be a missed opportunity for Scotland. There are going to be five colleges in England; they have already been announced. There will be one in Wales around their idea of concentrating on autonomous systems. There is such a huge opportunity in Scotland. Scotland has always had a strong relationship with the armed forces. The north-west of England and Scotland have always been, for example, the Navy's biggest recruiting areas. Lots of those people come back and want to learn new skills and have the transferability. DTECs would be a really great way to do that. I guess we all just keep our fingers crossed that once the Scottish Government elections are out of the way, something can be fixed between Westminster and Holyrood and they can get under way.

The other thing worth mentioning is the Defence Universities Alliance. I think about 70 universities have applied to be part of the alliance. The Government will narrow it down to 20. I would expect to see quite a strong Scottish showing in that. Anything that raises the profile of the

sector and improves Scotland's influence on the way we deal with the expenditure, the skills and so on has to be a good thing.

Q130 **Mr MacDonald:** Do you think the Scottish Government are hostile to the defence sector, or do you think they are neutral, deep down?

John Howie: I think that the relationships between the defence industry and the Scottish Government are better than they were. The change in leadership in Holyrood certainly had an impact and we have found some common ground. That common ground is skills and economic impact. If you don't get too hung up on some of the ideologies, we can all accept that generating lots of highly skilled jobs that impact on the economy has to be in everyone's best interests. I think the relationship is improving.

Q131 **Chair:** ADS Scotland has called for the recognition of defence as a strategically critical sector. Is that something you would agree with? I can take just a yes or a no; I suspect that we all agree on that one.

All Witnesses: Yes.

Q132 **Chair:** Thank you. The UK Government recently announced the £50 million for the Scottish defence growth deal. I presume that all your organisations, as prime contractors, will have a role in that. ADS Scotland has suggested that that growth deal should help to build on existing networks with universities, colleges and the defence companies. From the evidence that we have received, I would surmise that those relationships are already quite strong. Is that a fair assessment of where we sit?

John Howie: I would certainly say so. Again, it is very establishment-driven. Some colleges and universities are more proactive in the way they work with industry than others are, but yes, there are strong links. The defence growth deal will put £5 million of funding into the Arrol Gibb Innovation Campus, which I mentioned earlier. The Clyde innovation centre, which is mentioned in it, will deliver real value for SMEs around places like West Dunbartonshire, East Dunbartonshire and so on.

That money is going to be really valuable, and it builds on some other things. I chair the innovation group for the eight regions around Glasgow—the Glasgow city region—and money has gone in through things like the innovation accelerator partnership and the local innovation partnerships fund. Of course, some of that money is in dual-use technologies. Glasgow is the world centre for the production of CubeSats for the space industry. I think that the defence part of space is increasingly going to look more like Starlink and a bit less like large spacecraft that go into the air for 50 years.

I think that we will see a real advantage, not just through the specific defence mechanisms but through the broader drive to stimulate high-TRL technologies delivering economic impact.

Q133 **Chair:** This Committee has also taken a great interest in the space sector, so I am glad that you mentioned it. Would anyone like to add anything to that answer?



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Mark Stead: I agree with all of that. We do need to be careful to pick our winners, in terms of the particular areas. The colleges aside, things that promote the enabling of key capability that the UK needs—from our perspective, specialist areas like photonics and semiconductors—could find their home really strongly in Scotland and serve not just the UK need but global requirements with NATO allies and the like. There are some areas where we could leverage things like the defence growth deal investments really quite strongly into building competence and capability areas that have much wider relevance.

I want to make a geography point as well. I know that the Committee's purview is Scotland, but I mentioned at the start that I have an office in Newcastle, which is growing and being very successful, and we connect very closely. Clearly, there is a certain artificiality to the border, and there is a great opportunity for Scotland to nurture capability, and industry and academic connections, across that border in the north of England, to grow the powerhouse as a paradigm beyond the Scotland narrative and across the geography from northern England to Scotland and the central belt. If we can encourage some of the English allocation of the defence growth deal into the north of England, where there is a geographic connectivity, then Scotland could realise some benefit from that, too.

Cathy Kane: To reinforce the conversation around the close links with universities that already exist, we work with the University of Strathclyde and the University of the Highlands and Islands. We have key relationships with them, to ensure that they understand the skills that we—industry—require. We help to inform them about where they need their programmes to be going.

Neil Holm: I agree with everything that has been said. We work very closely with Strathclyde University and Glasgow University, and how we can do the lead-in investment so that they can come up with the new technologies that we will use in the future is deeply important.

Chair: Thank you all very much. That is the end of our questions to you this morning. We are very grateful to you for your time and for your input today, and I am sure that it input will have a big influence on our inquiry report, which we will produce in due course. Thank you again for coming along this morning.