HOUSE OF COMMONS

Scottish Affairs Committee

Oral evidence: Defence in Scotland, HC 611

Monday 21 February 2022

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Watch the meeting

Members present: Pete Wishart (Chair); Mhairi Black; Andrew Bowie; Deidre Brock; Alberto Costa; Sally-Ann Hart; John Lamont; Douglas Ross.

Questions 67 - 134

Witnesses

I: John Howie MBE, Chief Corporate Affairs Officer, Babcock; Oliver Waghorn, Head of Government Relations, BAE Systems; Stephen McCann, Managing Director, Optronics, Thales.

II: Kevin Craven, Chief Executive Officer, ADS Group; Dr Hina Khan, Senior Project Manager, Spire Global UK Limited; Dr Suzanne Costello, Chief Operating Officer, MCS Limited; Jamie Mincher, Chief Executive Officer, Glenalmond Group.

Examination of witnesses

Witnesses: John Howie MBE, Oliver Waghorn and Stephen McCann.

Q67 **Chair:** Welcome to the Scottish Affairs Committee and session two of our Scotland military personnel and estate sessions. We have three people from some of the major contractors in Scotland who I will now allow to introduce themselves. Please tell us who you are, who you represent and anything by way of a short statement about your company. We will start with you, Mr Howie.

John Howie: I am the chief corporate affairs officer for Babcock International Group, a London-based aerospace, defence and security company with large defence operations in Scotland.

Oliver Waghorn: I am the managing director of Government relations, international market strategy and business winning at BAE Systems, the UK's largest defence security company.

Stephen McCann: I am the managing director of the Thales optronics business in the UK, based in Glasgow. Thales is a global company headquartered in France and with a significant presence in the UK with 7,500 employees.

Q68 **Chair:** Excellent. Thank you ever so much for your attendance this afternoon. I know that you have given us some evidence previously. It is good to see you all in person at a House of Commons Select Committee hearing.

We will start with you, Mr Howie, and perhaps you can talk about the size of your footprint across Scotland, how many people you employ and also talk about the supply chain and its impact on communities. I will let you put it in your own words.

John Howie: We employ 3,200 people in defence in Scotland. We have a bigger footprint working in emergency services and the security sector but in defence 3,200 people, predominantly focused around the naval base on the Clyde—HM Naval Base Clyde—and in Rosyth in Fife—1,754 people in Rosyth and 1,459 people on the Clyde.

It is an interesting business in the sense that we tend to be the largest employer in the areas in which we are based. Dockyards historically tend to be in areas of lower social and economic mobility and, therefore, the jobs that we provide tend to have quite an impact on the local communities, a very positive impact. We tend to create jobs that pay more than the average for those areas and employ generally skilled workers who tend to be above the average as well. In that sense, I think defence is quite an important part of the local communities that we work in.

Q69 **Chair:** As someone from Dunfermline and West Fife, I know exactly the impact of Rosyth dockyard and naval base. On the Babcock footprint—500 people work in Rosyth, is that right—and with the Type 31 frigate programme that will go up to 1,250. Could you talk a little bit about that, or have I got that wrong?

John Howie: There are 1,754 there today. The Type 31 frigate programme will employ 2,500 people, half of them direct Babcock employees and the other half across our supply chain. We are ramping up our head count. Some of it is absorbed in the head count we had at the back end of the Queen Elizabeth-class aircraft carrier programme. The 2,500 is a mixture of existing employees and new employees, mainly apprentices and graduates who will come in to be the next generation of the workforce.

Q70 **Chair:** Can you talk a little bit about how that works? They worked for the Queen Elizabeth class, and they have been retained and recruited for the Type 31 programme; is that right?

John Howie: There were two reasons why we bid for the Type 31. BAE in the Clyde did not have any spare capacity at the time because of Type 26 and we had built up quite a body of skills from the assembly of the two aircraft carriers. With the way the programmes played out, we were able to roll some of that engineering and production resource over from the Queen Elizabeth class, with a bit of gap, but then rolled it into Type 31. It has allowed us to retain skills that had been built up through the carrier programme and now to enhance that with new graduates and apprentices.

Q71 **Chair:** The same question to you, Mr Waghorn. We have heard a bit about what is happening in the Clyde but could you tell us the scale and range of your jobs and how many personnel you employ now?

Oliver Waghorn: We have about 4,500 people employed in Scotland. Far and away our largest sites are Govan and Scotstoun on the Clyde where we have about 3,500 people. We have other sites in Hillend, Bishopton and Prestwick, which is part of our air business, and they do a lot of air engineering support for the whole group. We deploy about 50 people at RAF Lossiemouth on the RAF's quick reaction alert. That gives a sense of the scale of our activity. We also have about 300 apprentices based in Scotland across the maritime and air businesses.

Chair: The same question to you, Mr McCann.

Stephen McCann: Thales employs 700 people directly in Scotland, in Glasgow, based in Govan on the site of the former Stephens shipyard. Thales in Scotland is the oldest part of the Thales group. It takes its legacy from Barr and Stroud heritage, which was founded from Glasgow University in 1888. We commissioned an Oxford Economics study in 2017 and from that estimate that we have an impact on about 2,000 jobs in the local community, 600 of those through the supply chain, and onward economic impacts up to the whole 2,000, but 700 are directly employed in Glasgow. We employ 200 engineers, 90% of whom were educated in Scotland.

The tasks that we perform are exceptionally complex from a systems perspective. We are involved in sensors, big data and stabilisation, so the quality of those tasks is exceptionally high and has implications beyond defence into civil. We are currently exploring expanding our activity into the space area and looking at applying our technologies to the environment and so forth. We feel quite proud of our commitment and presence in Scotland.

Q72 **Chair:** The impression we have gained since the start of this inquiry is how committed your companies are to and invested in Scotland. Mr McCann, you talked about some of the highly skilled technological aspects of this employment. Are you able to get the recruitment you require? Are you finding that you have the necessary skills in the right localities? What do you do to source the labour you require?

Stephen McCann: The war for talent is often described as a continued issue for all business and I am sure my colleagues would echo that. We have significant links with our local universities and are involved with the University of Glasgow, the University of Strathclyde, Heriot-Watt and others. There is a lot of people in the area who we can source locally. We employ 200 engineers, 90% of whom were based in Glasgow or educated in Scotland, and we are looking to recruit a significant number this year. Keeping those people engaged and retained is hard, but they are, and we have to invest a lot of our own time in developing that talent.

Q73 **Chair:** What about the Babcock sites? Are you able to get the local recruitment that you require now? Are you invested in STEM skills? Do you have the same arrangements with the universities?

John Howie: Like Thales, we are lucky that we are largely able to recruit the skills we need locally. The company is high profile in the area, and we tend to be oversubscribed for apprentice programmes. We tend to work closely with particularly Strathclyde, but also Heriot-Watt and others, around graduate programmes, using internships and so on to get early access to the people who will come out of university. Increasingly in recent years we have been doing work on STEM programmes at both ends of the spectrum, working with people like Primary Engineer, delivering STEM training in schools. We have 700 active STEM ambassadors across the company who work with schools and colleges to promote STEM skills. We have also been running a STEM returners programme, getting people who may be a bit older who would like a career in STEM but need some conversion training.

On the whole, we get what we need. I flag up that, as Stephen said, there is a war for talent, particularly for STEM skills. The IET said that there would be something like a 173,000 gap of people with STEM skills in the years ahead, so we don’t underestimate the scale of the challenge of making sure we have the right number of skilled engineers and are able to retain them.

On the plus side, the work of the defence companies tends to be naturally technically interesting. It is not like packing boxes; they come in, they learn skills and complex platforms and systems and, therefore, retention levels tend to be good.

Q74 **Andrew Bowie:** I have a question mainly for Mr Howie and Mr McCann. I am aware that both of your companies are involved in the engineering side of supporting the defence industry and defence in general, but I am aware also that you help to deliver a lot of the training on base. Could you break down for the Committee, and for those watching who might not be aware, how many of your personnel in Scotland are engineering orientated and how many are driven towards training, for example the Astute training and all the rest of it, that goes on at Faslane?

John Howie: I could not give you a precise number, but in Scotland probably north of 90% are operational staff who are either delivering products or delivering critical services. There is an element of training, and you cited the main example, which is the operator and maintainer training for the Astute-class submarines that is delivered at Faslane.

Oliver Waghorn: Building on some of the points that colleagues have made, we are in a similar position with skills and recruitment. Our apprentice programme is typically oversubscribed nationally at about five to one, which is testament not just to the health of the business, the sector more broadly, but to the appeal of good-quality jobs for young people in the communities in which we work.

We are also big supporters of the Movement to Work charitable foundation. We provide work placements for Movement to Work candidates with a very high proportion of them coming on to take full-time roles in our business or some of our supply chain companies. We have a similar scheme of partnership activity with the universities as well.

The big allure is being able to signpost those generational programmes. For us in the maritime environment, it is Type 26 on the Clyde but Tempest in the air environment as well. They are the magnets that bring in the next generation of talent and allow us to be able to recruit as healthily as we do.

Q75 **Chair:** Lastly from me before I pass over to my colleagues, do you all work quite closely together in the delivery and infrastructure of defence resources across Scotland? Can you talk a little bit about that? Do you get together to discuss these issues? How often do you get the opportunity to meet colleagues down here at the Ministry of Defence, for example? Is any sort of guidance given to you about the type of approach you should be taking to places like Scotland? Let's start with you, Mr Howie.

John Howie: One really intriguing thing about defence, if I look at my colleagues from BAE and Thales, is that we will simultaneously be competitors, partners, suppliers to each other, and we are often customers of each other, and that is the nature of the industry. Clearly we work very closely with MoD to make sure that we do not do anything that is anti-competitive during procurement processes, but you will find all three companies in most of the big programmes in the UK. If you take something like the Type 31 frigate programme that we are developing now, the main guns on it are supplied by BAE Systems and the combat management system is provided by Thales. BAE is building the Dreadnought submarines and we are building the missile tubes that go in them. There is a quite close relationship between the businesses.

Looking at things like how we attract skills and so on, there has always been a view that between us we could probably do a lot more than we do today. Some of that is just the fact that we compete with each other and are trying to attract the best people while also trying to get the right outcome for defence and for the taxpayers.

Q76 **Andrew Bowie:** Our best example is the Aircraft Carrier Alliance because all three of your companies made up that alliance. You spoke about how you did not want to be perceived as anti-competitive. Given that all three of the major defence companies in the UK were the Aircraft Carrier Alliance, how do you combat the perception of being anti-competitive in that field?

John Howie: The great statistic from the Aircraft Carrier Alliance was that if you look at HMS Queen Elizabeth and HMS Prince of Wales on a pound per tonne basis, they are 50% cheaper than anything else that has been comparably built in the world. Although they are big, expensive ships, there is value for money. The Aircraft Carrier Alliance view is that they were delivered very effectively—certainly the best-run project I have ever seen in defence—and although it was an alliance, there was a natural competitive spirit between the companies; each of us wanted to make sure we added value. Culturally, when we got to the point where we were all working on the same site and we de-badged everyone, you had that real team ethos. The contract was set up to deliberately incentivise people to deliver to the earliest possible date and for the lowest cost. The contract mechanism itself was an important way of getting that value for money driver.

Q77 **Chair:** Was that your experience, Mr Waghorn? Obviously, when you hear about the Queen Elizabeth class for example, where Rosyth and Clyde were being used simultaneously almost when they were delivering the project, there must be close collaboration and I imagine some sort of joint planning when this is being organised, and the same with the two frigate programmes. Could you tell us a little bit about that collaboration and how it was put together?

Oliver Waghorn: It is a similar story for us. There are elements of competitive pressure on certain programmes but, by and large, it is an enterprise that we work in and that is not just among primes but is also with SMEs, the third sector and, of course, Governments. We are all part of the Defence Suppliers Forum which is the main consultative group that Government engages with the industry on, and we share problems and look to arrive at common solutions. Covid is a great example of sharing best practice, ideas about stock on PPE for example, safety mitigations on site. We share that information so that as an enterprise we can collectively put our best foot forward. It has its place with competition. There is a healthy tension where there needs to be, but generally speaking there is a collaborative spirit as well.

Stephen McCann: I can add to something that John Howie said in answer to your earlier question, Mr Wishart. We do collaborate in various other forums around how we represent ourselves in industry. ADS Group has a very active Scottish branch, and we are also all involved in a defence force partnership. There is a range of forums where we collectively work together on topics of common interest.

Q78 **John Lamont:** My question relates to the support that you provide to SMEs in Scotland. What percentage of your annual UK procurement spend is spent with SMEs, in particular those based in Scotland?

John Howie: Our total procurement spend last year was £830 million. Of that, 27% went directly or indirectly to SMEs. We spend about £270 million of that directly with SMEs—about 15% of our direct spend—but because we work with tier 2 and tier 3 companies and support them using SMEs, quite a lot of their expenditure goes to the SME community as well, so you end up with about 27% of the total expenditure.

Oliver Waghorn: Ours is a very similar percentage. Of £4 billion spent in the UK supply chain, £600 million is into SMEs—about 15%. In Scotland it is £350 million and £30 million respectively, so a slightly smaller percentage but that is tier 1. It is a very similar story to Babcock. There will be a much large figure in the supply chain that sits beneath us.

Stephen McCann: Our UK supply spend is £700 million. We spend just over 10% of that with SMEs. In Scotland, we spend about £5 million-odd with SMEs—defined as organisations with fewer than 50 people—which is about 8% of our total spend and is something that we are looking to grow. It is very clearly on our customers' agenda to encourage SMEs and it helps us to get more agile. We are very much looking to work with more SMEs as we look at subjects like autonomy and the Army looks at things like future capability acquisition in an agile fashion. We are engaging SMEs heavily to try to develop that part of the supply chain.

Q79 **John Lamont:** How do you think the Ministry of Defence's SME action plan, will contribute to ensuring that more SMEs are involved in this type of work and what is your role in contributing to that? Mr McCann, first of all this time.

Stephen McCann: The MoD's 13-point action plan is very obvious. Our customer is telling us it wants to encourage SMEs. We are obviously at the opposite end of the supply chain, and it is very clear to us that we need to support the plan to demonstrate our value to our customer because that is where our custom is. We are following the plan. In recent bid examples, we are bidding into the land autonomy market and essentially 80% of our value, relatively small bids, was through SMEs because it helps our agility and learning and helps to demonstrate that to our customer.

Oliver Waghorn: There are three main takeaways for us from the SME action plan. Probably the most important is the establishment of an SME working group within the Defence Suppliers Forum. It gives the SME community a voice to key stakeholders, Ministers, other primes and to themselves sometimes. It is a great way of raising issues and asking for help and is an important step forward.

The second takeaway is calling on primes to adhere to the prompt payment code. The biggest concern that SMEs typically have is cash flow. For our part, all of our legal entities adhere to the prompt payment code. Is an important part of our commitment to the wider sector.

The third takeaway is looking to standardise procurement processes across Government and including within defence. A company of our size is able to cope with niche procurement processes, but SMEs would have to reinvent that wheel every single time they bid for a programme. The Government trying to standardise that process is only going to make it easier for SMEs to participate in a cost effective way.

John Howie: I will raise some similar points while adding that the SME spend target in the action plan is a bold one, but it is the right thing to do. I think that it will put pressure on all the prime contractors to make sure that not only do we spend money with SMEs but that we encourage our supply chain to do the same thing.

Picking up on the point about the prompt payment code, managing their cash flow is the big thing for the SME community and, like BAE, we absolutely comply with the code as a core part of our business.

One of the smaller things, but one that is important for SMEs, is that there is a move in the action plan to use short-form, simple English contract models. One of the barriers for SMEs working in defence is that it is a complex market and the price of getting to the table can sometimes be quite high with bespoke, complex procurement processes and the simplification process will help. Industry has bolstered it. ADS has a due diligence tool called JOSCAR that allows SMEs to put their pre-qualification-type documents up there where the primes can all access them rather than constantly asking SMEs to produce them every time they bid to us.

The plan is the right thing to do, and I think it is getting good support across the industry.

Q80 **John Lamont:** Thinking about barriers to SMEs being involved in the sector, are there ever, have there been, or could there be, security concerns that SMEs, certainly new entrants, are not always aware of and that have been a concern to you in whether they should be involved in the sector or not?

John Howie: It is a good question. One of the things we have seen, probably in the last two years in particular, is that as state actors have tried to access the IT networks of large defence primes they have generally held up pretty robustly. Those state actors now tend to target small companies in the supply chain in the hope that they can prejudice their IT systems and get access to primes through the back door. It has often been to commit acts of fraud, but I guess as the geopolitical situation in the world changes, we have to take account of the fact that it might become more malicious than that. There is quite a bit of work being done at the moment to increase the oversight of cyber-activities as part of our broader security posture. Yes, I do think there is a risk and one that I think most primes are mindful of.

Oliver Waghorn: Yes. Certainly the cyber-risk is inherent in the supply chain. Whenever we look to take on a new supplier—and we will routinely do it with current suppliers—we put them through a pretty rigorous due diligence process to make sure that they do not bring liability to the programme.

There is a risk around Covid. During Covid, a lot of our energy was spent scrutinising our supply chain, making sure that they had the appropriate support in place so that they were not a rate-limiting step on us. That could be by mentoring on how they could put in place best practice or Covid protections but also some financial support ahead of our contract terms to make sure that cash flow was not going to be an issue for them. It is a necessarily interventionist approach to supply chain management. It is a day in, day out task for us.

Stephen McCann: I will add to my previous response. Essentially, we are looking to adapt our procurement policies so that we can onboard suppliers in a more agile fashion and make it easier for SMEs to join our business. It is in our interests to do so because it helps us to be efficient and competitive.

Q81 **Deidre Brock:** I want to get back to support for your businesses from the collaboration between the UK Government and the defence industry in Scotland and particularly about improving links between MoD bases and the defence industry in Scotland. Do you have any thoughts on how those things might be improved for the benefit of both areas?

Stephen McCann: We have local access to many bases. It is something that should be within our control. We are quite keen to increase the voice of our customer into our organisation and so forth. We take steps, particularly with Faslane, to make connections. I think that we are well placed to be able to get that access and that our customer is more than keen to help us. That is all I would say.

Oliver Waghorn: We have uniformed service personnel on all of our major manufacturing sites because we need them there. It is part of growing confidence and shared understanding from both parties, and they bring something to the table, so it is a very healthy exchange.

John Howie: In Scotland, Faslane is run as a partnered naval base. We have over 1,000 people on site. We work hand in glove with the customer on the basis of we each have unique skills to bring to the party. The general theory is that one and one should equal more than two so that we get the collaborative benefits of working together. The same as BAE, we tend to have uniformed and civil service personnel on our sites as part of programme delivery. They are there to make sure that the Ministry of Defence gets the asset that it is paying for, but they also bring unique operational skills that industry tends not to have. It seems to work quite well in practice. Like all things, it has to be worked at because we are trying to find the relationship that delivers the maximum value.

Q82 **Deidre Brock:** Are there any specific changes that you would like to see, or can you think of any that you might like to see, to procurement and investment practices from the MoD, just to make sure that Scottish industry can thrive? What sorts of things might you like to see in the future that we are not seeing at the moment?

Stephen McCann: We are seeing lots of positive steps and I might bring that down to how we are being served, but I think we are clearly all on a journey in how we act on defence procurement. From my own perspective, the First Sea Lord, Ben Key, made a recent speech—I think at John Howie's facility—which resonated with me. He said, "I want you to feel as invested in this as we are, not because of your share price, not because of the wonderful manufacturing facilities that allows you to create, but because you recognise you are integral to the success of a Global, Modern, and Ready Royal Navy". That is something that we all aspire to. We all aspire to see ourselves as an integral part of an enterprise. Of course we want to make money, of course we worry about share prices, but if we are going to be the most agile we can be as a community, we have to see it as being part of an enterprise.

I think that is something we all aspire to, and you can see through the various defence procurement policies that there is an aspiration to head in that direction. Traditionally our procurement has been quite long-cycle and is not always to the benefit of the best outcome, but you can start to see that changing in intent and in how future procurement will be done. We would like to see more of that, frankly. Thales is very grateful for the support we get. We have provided every periscope for the Royal Navy and are currently talking to our colleagues in BAE Systems about how we provide them for the Dreadnought. We are heavily invested in all the UK's vehicle programmes. We are very grateful for that support, and we would like to see more of it.

Looking at the future of defence, it will be very much about data, sensing systems and so forth. If we are going to compete with the threat out there rather than with our colleagues round the table, that will require us to continue to develop our approach to procurement such that it becomes much more of an enterprise across the community involved.

Q83 **Deidre Brock:** As highlighted by the National Audit Office and the Public Accounts Committee, some of the MoD's procurement strategies have not been terribly successful. Mr Waghorn, I saw a rather wry smile when I asked that question. I wondered if you might have something to contribute. No?

Oliver Waghorn: Not on that particular question.

Deidre Brock: Okay. The Scottish Government are suggesting that appropriate MoD procurement practices are needed to allow Scotland's defence sector to thrive and innovate. Their proposals to achieve that are: that changes to MoD procurement practices and policies, as signalled in DSIS and the transforming public procurement Green Paper, support the broad defence footprint in Scotland; that the UK Government introduce a level playing field in defence procurement with support to improve access to the market for new, innovative suppliers; that the UK Government utilise the powers at their disposal, when appropriate, to exempt full competitive tenders under article 346 of the treaty on the functioning of the European Union. I am interested to hear your thoughts on those points.

Oliver Waghorn: To give some context, if we cast our minds back to the publication of the Integrated Review, the Defence Command Paper and the Defence and Security Industrial Strategy, it is my view that the most important one of those was DSIS. It represented a fundamental shift in the Government's understanding that they can effectively work together with industry. It moved away from a place of competition by default. It recognised that you have an artificial market where competitive pressures are not what you would find in the textbook. It recognised that a partnership approach was the best way to achieve long term value for both parties in the sector. It also introduced the concept of social value in contracting and this is a significant shift—a minimum 10% of scoring of any competitive process will be down to social value considerations. It recognises that industry does not just make a difference to military capability but makes a difference to the economic health of the nation as well through tax revenue, skills, apprenticeships, exports, and so on.

This is a significant shift. It is early days. DSIS has been with us for only a short while and social value for even less time, but they are good, healthy signs of a mature and well-functioning procurement process, so I think it is a positive step forward.

Q84 **Deidre Brock:** There is quite a stooshie at the moment over the fleet solid support ships and the decision by the UK Government to categorise them as civilian ships, I think, as opposed to warships. Do you have any involvement in those projected builds at all? Is that you, Mr Howie?

John Howie: Both BAE and Babcock are part of the Team UK bid into that programme. I think there are four bidders in all. Team UK—the hint is probably in the name—are all for an effectively UK-based solution to that programme but some of the other bidders are potentially using international shipyards.

Q85 **Deidre Brock:** Okay, and nothing to do with you? Okay. Can I also ask about exports and how important they are to your operations in Scotland? I have heard some suggestions that perhaps some companies focus too much on the defence market that the UK provides and are not expanding far enough internationally. I was talking to someone about Leonardo and the fact that it operates on a sort of pan-European basis and is getting a lot of international engagement and sales. What are your companies doing to push further afield for international sales?

Oliver Waghorn: I will start. Nearly 80% of our revenue is from outside of the UK. I hope that gives a sense of our geographic distribution.

Exports are important and not just for us but for the sector more broadly. On a rolling basis, the UK is the second largest defence exporter in the world. It is something we are really good at doing.

On the impact on places like Scotland, the Type 26 programme is an eight-ship programme for the UK but because of the successful export of the Type 26, it is part of a 32-ship global programme. That is 32 ships that SMEs have an opportunity to contribute to, that apprentices are able to work on and support. It is a game changer for us. Exports are an incredibly important part of a successful defence enterprise and are recognised by the Government. They pulled it out loud and clear in DSIS. I think I speak for all of us in saying the support we get from Government on exports is absolutely first class and that is from the Prime Minister down through Ministers, Secretaries of State, embassies, defence attaches and the single services as well.

Q86 **Deidre Brock:** Questions about who the Government choose to sell to will probably wait for another day and different witnesses, but you have five contracts still to sign on the Type 26s, haven't you, in the 2020s I think? There is a sort of vague commitment from the Government. How confident are you that all of those five remaining Type 26s will be built and built in Scotland?

Oliver Waghorn: Very confident. The Integrated Review and the Defence Command Paper are very clear that it will be an eight-ship programme. The first three are in build. We are currently in the middle of a negotiation with the Department on batch 2, the second batch of five ships. To give the Committee a sense of our confidence in the programme, we are already investing significant sums in long-lead items for the second batch of five ships. We are very confident.

Q87 **Deidre Brock:** Okay. Mr Howie, you are from Babcock. You had a visit recently from the Prime Minister and your CEO was quoted in *The Daily Record* as saying, "If we had to replicate this in England because we were told we weren't welcome here—which I think would be a bad mistake for Scotland—but if that were the decision, we can replicate this in three years" and he said something further to that. Are you able to point to where the SNP Government have indicated they would not welcome the work that Babcock is doing at its dockyards or the decommissioning works it has undertaken in Rosyth and through its subsidiary company—Cavendish I think it is called, isn't it—in Dounreay? Where have they have indicated that would not be welcome in an independent Scotland?

John Howie: As for newspaper headlines, I can say that nobody has told us we would not be welcome.

Deidre Brock: Good to hear.

John Howie: We have recently invested £76 million in the site at Rosyth as a core part of our business strategy. I think what our chief executive was trying to say—because there are always competing pieces between shareholders who worry about what constitutional changes mean for business continuity—is that the reality is that your business can operate from wherever it needs to. We would not have invested that money in the site at Rosyth if we were expecting to have to make changes to it.

Deidre Brock: A number of small countries such as Denmark and Norway, have significant shipbuilding programmes. They seem to have managed quite successfully. Certainly Denmark's entire naval fleet, as I understand it, was constructed in Denmark. It would seem odd to suggest that a company like Babcock, which specialises in that, would just be withdrawing on the basis of Scotland becoming independent.

Q88 **Chair:** It must be very frustrating being drawn into the constitutional debate about Scotland. I could sense your impatience in answering that question, Mr Howie.

On procurement, how disruptive is it to all your businesses and enterprises when there are constant changes to procurement rules and practices from the MoD? Obviously you have to manage it but is it a big challenge to some of your forward planning?

John Howie: Historically, there have been two parts to it. One is the actual procurement process itself. I think Stephen McCann indicated that the MoD has been working hard to make that process better, and I cite the Type 31 frigate acquisition process that was done in probably half the time a traditional procurement would have taken. Unusually, the customer was very clear upfront about the price they were expecting to pay and what they expected to get for it. There is nothing like those kinds of challenges to get industry to innovate and that is partly where our investment profile came from; that is how you deliver a £250 million frigate.

The second part of it, the part that has historically been disruptive, is changes to the customer requirement during the contract period, when you sign a contract to build a Type 26 frigate and then it constantly evolves. What I think the MoD learned very valuably from the Queen Elizabeth programme was that it wrote the contract in a way that disincentivised change and the benefits you get from being able to plan and execute the plan with minimal disruption are huge. It has carried that forward into Type 31 and written a contract that is not allowed to change. There is definitely a process running where some of the things that were historically disruptive to us and to the impact we have on our employees and the supply chain are getting better.

Chair: Thank you. We will leave it there.

Q89 **Alberto Costa:** The purpose of the question I want to ask perhaps goes further than my colleague Deidre Brock's points. It is to identify the impacts that the UK's changing defence priorities might have on investment, employment and communities in Scotland. What are the main ways that these UK defence priorities changing might affect your organisations in Scotland in the years ahead?

Stephen McCann: As we mentioned earlier, the future of defence is clearly changing. There will be much greater emphasis on data, data management, sensing and so forth. From our perspective—and you could say the same for our colleagues in Leonardo in Edinburgh—we are quite well placed to take advantage of that. Our task is to improve and increase our capability in that area. We would see ourselves as very well placed to take advantage and provide good input for our customers.

Oliver Waghorn: A couple of things. Investment is clearly the biggest driver of change for the sector, so the defence settlement is really good news not just for industry but for the thousands of people we employ across the UK. I have already mentioned the importance of DSIS in offering us all a much more coherent industrial policy against which we can invest. That is what the policy clarity allows us to do and not just invest in sites but in skills, training and R&D. Global Britain should point us towards a much healthier appetite for export activity. I have already pointed out the reliance the sector places on exports.

The last thing is skills. To give the Committee a sense of context, some of the experts in our business in things like additive layer manufacturing are in their early 20s. This is a paradigm shift for us, where we would normally expect the most experienced parts of our labour force to be in their 40s, 50s, sometimes 60s. It is a generational change where they are bringing out the best of talent and it is off the back of landmark generational programmes like Type 26, Dreadnought and Tempest that we are able to do those things.

John Howie: Picking up on Oliver Waghorn's point about the skills piece, I was thinking there about our work on the Dreadnought and US Columbia-class submarine programmes where we are building missile tubes. The people who are doing that are a mixture of new apprentices who joined the business and who have proved to be adept at picking up the skills of working in an area that has seen £20 million worth of investment in advance manufacturing capability. The other people who are working on that programme came in from the downturn in the oil and gas sector and had been used to working in high-integrity manufacturing, subsea modules, and they just instinctively understood the complexity of the product.

If I think more generally, we are seeing the defence acquisition cycles starting to reflect the fact that we are back to what they would call nation-state actors again, so state-on-state aggression. That is driving much more interest in cyber and electronic warfare, autonomous systems and signals intelligence, but the other thing it is doing, from an export point of view, is encouraging a lot of NATO countries around the world, and our partners, to invest in new capabilities. Type 26 has been successful in export. We have already sold the design for Type 31 into Indonesia, and we are confident on Poland and the programme in Greece. It is because people are now looking to renew their defence capabilities in light of a change in the world environment.

Q90 **Alberto Costa:** You mentioned the Columbia-class submarines. Those are the modern SSBN-X future ballistic nuclear missile submarines. Did you say that you produce some of the tubing in Scotland?

John Howie: The missile launch tube assemblies for both the Dreadnought class and the Columbia class is a common missile compartment and 75% of those are produced in Rosyth.

Q91 **Alberto Costa:** Following on from the question that Deidre Brock asked, in an independent, nuclear-free Scotland, which is SNP policy, presumably that sort of investment in manufacturing that sort of equipment would be put at risk.

John Howie: I guess the simple answer is that it is difficult to talk about hypothetical situations depending on what happens constitutionally in the future. It is between the two Governments to decide what the defence landscape looks like, and industry's job is to support them once they have made those decisions.

Q92 **Alberto Costa:** How likely is it that you will spend more money relative to inflation increases in employing more people in Scotland in the years ahead, Mr Howie?

John Howie: There are two parts to that. In the short term, and not just for the defence industry but industry more generally, volatility and inflation are risks. Clearly people are seeing their wages reducing in real terms. That puts pressure on industry, and we have to deal with the fact that we have customer contracts that try to pass that risk to us. If I set that to one side, our business in Scotland is growing. We are investing in our workforce numbers and skills on the Clyde, in both of those and in advanced equipment in Rosyth. There is an export market there for Rosyth that is proving to be quite vibrant.

The other thing is we tend not to rely on defence as our only customer. The Rosyth business has been very successful in winning several nuclear decommissioning works. Historically, we have done a range of work for oil and gas, for offshore renewables. The skills are about advanced manufacturing and integration; sometimes we use them to build ships and sometimes we use them to build oil and gas modules.

Q93 **Alberto Costa:** Mr Waghorn, what are your views on whether there would be more money spent relative to inflation increases in Scotland in the years ahead?

Oliver Waghorn: Philosophically it has to be the case, hasn't it? If the Government are introducing a social value framework, the prizes, skills and investment in the UK over doing so overseas can only be to the advantage of the UK and, within that, Scotland. If the social value framework plays out as we expect it to, I think you will find a positive trickle-down effect across all parts of the UK economy, so I think that is right.

To give a sense of our growth expectations on the Clyde, I mentioned that we employ 300 apprentices there. This year, we will take on 140 apprentices. It is typically a three-year programme, so in three years our apprentice programme will be 50% larger than it is currently. That is the level of confidence we have in the future of that site.

Stephen McCann: Likewise, we are targeting to grow beyond inflation over the coming years. That is our ambition, and we see that as entirely possible. Of course we have to be careful in the short term about how we reward ourselves relative to inflation in our competitiveness, but we are seeking to be aggressive in that fashion for overall growth.

Q94 **Alberto Costa:** You have already touched on the opportunities that Tempest, Challenger 3 and Dreadnought present for investment in Scotland, but how can these opportunities be maximised?

Stephen McCann: From a Thales perspective, they help us maintain and grow our skills and that can lead on to further opportunities in the land environment. As the customer starts to look at autonomy and how it can integrate its sensors and manage data in a broader fashion, it can lead to broader opportunities. Frankly, we are using those same skills to do other things. We are looking at expanding into the space sector. We are looking at something called an optical inter-satellite link, which essentially utilises the same skills and provides an additional growth opportunity that will be quite extensive for us. It will help us grow our defence base and exercise ourselves into civil markets, simple as that.

Oliver Waghorn: Dreadnought and Tempest are two very important programmes for the whole of the UK; we estimate that the Dreadnought programme supports 2,000 jobs in Scotland currently. The programme has spent £215 million today in the supply chain, £33 million of which was last year alone. There are 43 suppliers in Scotland for that programme. Leonardo alone is a landmark employer for the Tempest programme and supports over 2,000 job roles on Typhoon and radar systems into Tempest. It is also a fantastic export success. The E-Scan radar is out to 30 countries. These are very important programmes for the collective skill base of Scotland.

John Howie: Our particular focus is on the Dreadnought programme. I mentioned the missile tubes, which is a hugely significant programme for us in an area where for the UK to get that level of involvement in a strategic programme in the US is relatively unusual.

The other area of that programme that is quite close to our hearts is the weapons-handling and launch system for the torpedo launch system. On the back of the Dreadnought system, we have been able to develop our core solution. We are a world leader in weapons-handling and launch systems and that will play into our export markets, where in recent years we have exported into countries like South Korea and Spain. That latest Dreadnought-type solution will inform what we sell on the export markets in the future.

Alberto Costa: Thank you very much, gentlemen. You give ample evidence of the investment that the UK Government are making in the defence industry and how it benefits the Scottish supply chain in particular, which Mr Waghorn just mentioned. Thank you very much.

Q95 **Andrew Bowie:** Chairman, I completely agree with your earlier statement that it is frustrating that we keep getting drawn into the constitutional debate over and over again.

Before I talk about the refresh of the Government's National Shipbuilding Strategy and the Type 26 and Type 31 orders, Mr Howie, you expressed your belief that nobody in Scotland—no Scottish Government official or anybody else, for that matter—has ever made Babcock or anybody else around the table feel unwanted. I completely believe that is the case.

Of course you will be wanted, you are fantastic employers and good investors in communities around Scotland, but the fact remains that all three of your companies are involved in programmes that are delivering high spec, top secret and highly sensitive equipment. Mr McCann, if I am not mistaken, you are delivering periscopes for the Astute submarines; Babcock is delivering tubing for Dreadnought in the Columbia-class in the US; and BAE has already spoken about the Tempest system. It is the case that these systems are only being developed in Scotland because of the UK's membership of the "Five Eyes only", and a lot of these systems are UK eyes only.

If Scotland was to leave the United Kingdom, it isn't inconceivable that a UK Government, for the rest of the UK, would want to have these systems, given that a lot of these deals were struck—for example, with the United States of America—because we share so much of the nuclear capability across the Atlantic. It is not inconceivable these orders and these programmes would have been relocated south of the border, no matter how much the Scottish Government might want them north of the border. Do you not agree?

Stephen McCann: In answer to your direct question of whether I think they will have to be, I don't think they have to be. From a Thales perspective, we are exceptionally committed to Scotland. We have been there for over 100 years, and it is exceptionally important to us. It is not for us to tell people how to vote or politicians how to define defence policy. We are hopeful that we are able to maintain our position, but of course if choices were made that impact us, they could be significant, and we would have to adjust to those. Clearly we are very grateful for the support we get currently from the UK Government.

Chair: I presume you both agree.

Q96 **Andrew Bowie:** We have already spoken today—and some of my colleagues on the SNP Benches are the most vociferous, and rightly so—about the UK Government's placing of orders for non-warship contracts overseas. If Scotland was no longer in the UK, surely that would apply to Scotland as well.

John Howie: For me, it comes back to our corporate view. As Stephen said, it is not for us to get involved in trying to figure out what the constitutional dynamics look like. I think what industry has proven remarkably adept at is adapting. If a constitutional settlement meant that we could not operate within the Five Eyes or we could not get contracts placed, we would have to adapt to that, but it is a hypothetical situation. We are not sitting and planning to make any changes to our business. As

I said, we have invested in it recently on the basis that we hope to be able to continue to operate in—

Q97 **Andrew Bowie:** Hopefully it is a hypothetical scenario and will not come to pass anyway.

On the refresh, what changes do you hope to see as a result of the Government's shipbuilding strategy refresh?

John Howie: What we are hoping to see, first and foremost, is a long-term plan. There has been talk about a 30-year plan. I think the Government's ambitions for the National Shipbuilding Strategy refresh are to provide a basis on which the industry will invest and create a genuinely internationally competitive industry. For industry, investment is about certainty. It is a long-term plan, particularly a long-term plan with a shift in government policy to say that it is not a default competition policy. It is a plan that is able to balance the need to use competition as a way of extracting value for money for taxpayers, alongside a process of a more strategic procurement model that guarantees certainty of long-term business that allows us to invest in skills and infrastructure and create a business that can be genuinely competitive internationally.

Oliver Waghorn: If I think back to the first National Shipbuilding Strategy, it tended to focus on the defence domain and within that tended to focus on shipbuilding, steelwork and yards. I think we can see a refresh broaden the scope to include a greater focus on the civil sector but also in the systems and sub-systems that go into shipbuilding, which are just as important as some of the manual labour that goes into building a ship.

On the themes that we might expect the National Shipbuilding Strategy refresh to address there is something around green technology, of which the UK could be a leading participator, clearly not just in the UK but around the world, and a focus on productivity, driving up competitiveness of UK yards against our competitors overseas. Allied to that is significant investment in skills, what a national shipbuilding skill strategy would look like. There is introducing concepts like autonomy. There is what we can do to double down on what is already a successful export sector and what more we could all collectively do. Those are the five themes we would like to see come out of the National Shipbuilding Strategy refresh.

Stephen McCann: Finally to add that from our perspective we want to highlight the criticality of sensor systems to assured capability for operational advantage and operational independence. That is things like sonars and periscopes and so on, electronic warfare capability. Those are particularly important.

Q98 **Andrew Bowie:** This question is mainly directed at Mr Waghorn. We touched already on the contract mechanism for the Queen Elizabeth-class aircraft carrier and how that was designed to deliver value for money and as close to the target date as possible. Has that proved an example to follow? I am thinking back to some of the predecessors to the QE programme, like the Type 45. My question is aimed at this: how confident are we that the full Type 26 order will be delivered?

I think when the 45 concept was first being developed it was 12, then it was eight, then it was six with an option of eight and then we ended up with six. The plan was to have four at sea at any one time and at one stage last year all six were alongside in refit in Portsmouth. How confident are you that the Type 26 can be delivered and has that QE contract changed the game in how you talk to Government and discuss and negotiate how contracts will be delivered?

Oliver Waghorn: As I said earlier in the hearing, we are very confident on Type 26. It is a stated intent in the Integrated Review and the Command Paper, and it is on the basis of a five-ship, batch 2 programme that we are currently in negotiations on with the Department, so we are very confident that that will proceed.

On the lesson on the value from the QE programme, it is sort of philosophical more than anything else. I think it was a real point of departure away from a simple buyer-supplier relationship that you would typically have found in other programmes to one of shared endeavour, shared risk—shared financial risk—shared targets and compromise, not just between us as a supplier and the Department, but Babcock, Thales and others in the supply chain as well. It was a very different mindset. I am not sure whether that is the right model for every class of ship, but certainly the sense of openness and shared endeavour has to be to mutual benefit across programmes.

Q99 **Andrew Bowie:** I am conscious of time, so I will be very quick in my last question. We keep getting told by Government—and we would like to believe them—that the order books are full, that the shipyards are working to full capacity in trying to deliver the UK Government's shipbuilding strategy and to deliver these new ships for the Royal Navy, which is obviously great news.

I am thinking of the eight Type 26s and of course you have five Type 31s or we are supposed to be replacing 12 Type 23s that were in service. I believe that in 2005 there were 11 Type 42s in service, and we have only six Type 45s. If the Government decided that they needed to up the number of ships for whatever strategic reason, is there the capacity to upscale within Scotland or do you think we are literally at the limit?

John Howie: I can only talk from the Babcock point of view. We deliberately invested in the site, knowing that there would be a Type 32 programme behind Type 31. We have capacity to increase the production rate from its current level if the MoD need us to.

Oliver Waghorn: Similar view. We have an optimistic sense of shipbuilding in the UK. We are currently putting through early stages of planning a significant site investment to our shipbuilding and outfit hall, which will allow us to build under cover three ships at the same time. That will be a step change for the shipbuilding enterprise on the Clyde as far as we are concerned.

Q100 **Andrew Bowie:** This is the long-awaited frigate factory?

Oliver Waghorn: In a sense, if you like. Yes, it is that sort of thing.

Chair: I like the sound of a frigate factory.

Q101 **Sally-Ann Hart:** Good afternoon to our panel. Picking things up from Andrew and looking at the impacts for the Scottish industry of the Government's new 2021 policy that the procurement approach for each class of Royal Navy ship is determined case by case rather than on the 2017 strategy, which was on design, building and integration in the UK, what are the impacts for Scottish industry? Perhaps Mr Howie from Babcock can take that first.

John Howie: At a generic level, not applying a one-size-fits-all approach to procurement makes sense. There are some similarities in the procurement of a nuclear submarine or a Royal Fleet Auxiliary, but the complexity is quite different, so I understand that approach.

I understand inherently why Defence chooses to use international competition because ultimately they are trying to extract value for taxpayers. The challenge is that when we look at international competitiveness most of the people or many of the people that Babcock and BAE compete with internationally are state owned or state sponsored and, therefore, competitiveness is a relative term. Obviously they are funded in a different way to the way we are as private companies. That allows them to bid quite aggressively for programmes.

In using international shipyards for UK programmes, we have become increasingly mindful as we bid for export work that, because it tends not to be reciprocal, some of the people we compete with will say, "You can't trust a UK shipyard because even its Government have invited us in to bid for work." As I said, I understand why it is done, I can see the sense in it, but there is an optics thing in the export market, where we work quite hard with the Department for International Trade to manage that expectation piece.

Yes, I think the shift in policy generally makes sense. Like all of these things, the devil is in the detail, and it is about how we apply it case by case. Fleet solid support ships will be an interesting test case because it is the first time that we have deviated from a sort of normal mechanism.

Q102 **Sally-Ann Hart:** Would you agree with ADS Group, which has said that the UK Government should signal a move away from global competition by default to a more nuanced position on defence procurement? Do you agree with that and what do you think a more nuanced position should look like for Scottish shipbuilding?

John Howie: The first part, yes, we do agree with it, and we support the ADS line. The second part is in line with some of things that Defence are already trying to do around the use of social value in assessments and particularly looking at prosperity benefits. We have always been quite keen to see that when decisions are being made on defence acquisition to not just look at it from a simple value for money basis but to look at the prosperity benefits for the UK, the tax take that is generated by the work that is done in the UK and by the supply chain that sits behind it. That sometimes would give us a very different approach.

There is also a piece about the extent to which companies like BAE and Thales and others export from the UK and some of the international primes retain their IPR in their own sort of domestic operations. It is looking not just at the prosperity they bring by employing people in the UK, but the opportunity that they can add to the UK's balance of trade by exporting defence products from the UK as well. That more holistic approach to defence procurement has to be a good thing.

Sally-Ann Hart: Thank you. Mr McCann, do you have anything to add to that?

Stephen McCann: Not particularly. We would fully endorse the ADS line and of course all the things of being competitive solution-wise. Social value and so on is entirely important, so we think that that could be nuanced, as has been outlined.

Oliver Waghorn: I agree with John and Stephen. I think there is a risk of taking the naval procurement policy too literally. I mentioned DSIS, but the introduction of a much more mature industrial policy in a sense is a counterbalance to that. It recognises the value of having a long-term commitment to a sector and reinforces notions of sovereignty and operational capacity. It understands that for us to make significant investments in supply chain, skills and infrastructure, we need policy confidence and certainty. You don't get that from a wild west competitive environment.

The other thing is that UK businesses have nothing to fear from global competition per se. Type 26 is a good example and Type 31 is another one. The exports into Canada and Australia were done in competition, two fantastic world-class shipyards, and the UK won. That is a testament to the skill and competence of people on the Clyde. That is a world-class capacity. Yes, I am not unduly concerned by it.

Q103 **Sally-Ann Hart:** How have or will Scottish industries benefit from export to Canada of Type 26 and Type 31? How will they benefit Scottish industries?

Oliver Waghorn: As I said previously, it turns an eight-ship UK programme into a 32-ship global programme. It is true that there will be supply chain companies in Australia and Canada who will certainly want a significant share of that, but there has to be an incumbency advantage to SMEs based in the UK. If you are already on the programme, you have invested in the intellectual property, the machining, the tools and the people, you are naturally going to be at a competitive advantage when pitching into a 32-ship global programme. It offers them scale of opportunity, which otherwise they just wouldn't have had.

Sally-Ann Hart: Mr McCann, would you like to add anything to that?

Stephen McCann: No, nothing to add. Thank you.

Sally-Ann Hart: Mr Howie?

John Howie: I echo Ollie's comments. If I think about Type 31, which was deliberately designed as an exportable frigate, the programmes that lie ahead of us, the value we get from it is twofold for us. Parochially it sustains the engineering capability and allows us to build capacity, so that value flows back into skills and employment levels in the UK. It allows us to build bridgeheads into new markets. We are bidding into Poland at the moment. We would like to build a broader business in Poland on the back of any success there. Then thinking about the supply chain, as we said, although there will be local indigenous suppliers for some of the equipment, the reality is a lot of the big complex equipment will likely be the same from one export order to the next. That allows suppliers to get a longer-term programme view, where they can invest in their own skills and infrastructure.

Sally-Ann Hart: Thank you. No further questions.

Q104 **Chair:** Given that we have a statement on Ukraine currently being conducted in the Chamber just a few hundred feet away from here, have you been consulted at all about any of the industrial or technological requirements that might be required in the Ukraine if the situation was to escalate at all?

Stephen McCann: I wouldn't really want to comment in this public forum, if that is okay.

Q105 **Chair:** All right. Does anybody feel they can help us with this? What we are trying to get to is just the ongoing conversations you may have with Government with escalating and changing international situations. If you can help us with that without breaking any sort of trade secrets, it might be helpful to the Committee.

John Howie: It is in the public domain that we signed a co-operation agreement with the Ukraine Government on the supply of new vessels as part of a Ukraine Navy capability enhancement programme. Clearly with an evolving situation in the Ukraine, we are staying very close to UK Government and of course to the Ukrainian Government. Beyond that, I probably shouldn't say too much more in a public forum.

Chair: Can you help us at all, Mr Waghorn? Are you at liberty to tell us anything at all?

Oliver Waghorn: I don't have anything to add to the other two.

Chair: Fair enough. Thank you ever so much. That was a fantastic and fascinating session—we have lots of nodding heads—and we very much appreciated your evidence. A couple of things are outstanding that you might be able to help us with, but if there is anything useful you can contribute to this ongoing inquiry, please get in touch. We have really enjoyed having you here today and in person, which is quite novel sometimes for the Scottish Affairs Committee. Thank you. Our second panel will be virtual.

House of Commons

Examination of witnesses

Witnesses: Kevin Craven, Dr Hina Kahn, Dr Suzanne Costello and Jamie Mincher.

Q106 **Chair:** Welcome back to the Scottish Affairs Committee and our second evidence session into defence in Scotland, military personnel and estate. We have representatives from the SMEs involved in the defence infrastructure in Scotland, who I will now let introduce themselves and tell us which companies they represent. We will start with Dr Costello.

Dr Costello: I am chief operating officer at MCS Limited, which is Materials Consultancy Services Limited. We are based just outside Edinburgh, and we have just less than 20 employees, so really on the small end of SME. We deliver manufacturing reliability solutions for companies within the defence sector and also across other sectors within the UK and across the world.

Dr Khan: I am based here in Glasgow. I am the UK stakeholder engagement for Spire Global UK. We are a small satellite manufacturing data analytics company, and we build small satellites that are used for ARP information and probing the ARP to provide resources for ship tracking, aircraft tracking and weather forecasting.

Chair: We will try to resolve some of these difficulties in an effort to get Mr Craven online, who I can now see. Mr Craven, can you hear us okay? You can. Thank you for joining us. I know there has been technical difficulties in to get you here, but you are here now, which we are immensely grateful for. We will go back to Mr Mincher, please.

Jamie Mincher: I am the CEO and one of the owners of Glenalmond Group Limited. We are a private family-owned SME, with about 150 highly skilled team members. We are based just outside of Glasgow in the great town of East Kilbride—just south of the Glasgow city centre, for anyone who knows the area.

We provide highly skilled engineering and manufacturing services to a range of industries and that includes the energy, defence and space sectors. Our core capabilities are making highly engineered products for these sectors. We have a high investment in R&D for advanced technologies and we support a lot of development within these sectors.

We are about 90% export orientated and, to be absolutely honest, our involvement in the defence sector is still a relatively small part of our business right now, but we are very much at the beginning stages of developing that. I think that is one of the reasons why I was asked to be here, so thank you very much for having me.

Chair: It is our pleasure and thank you for coming along. Last, Mr Craven.

Kevin Craven: I am the CEO of ADS Group, the trade association representing the aerospace, defence, space and security sectors in the UK. We have a very vibrant and lively Scottish section of the membership. In total, I think there is about £2 billion of defence turnover in Scotland, many of whom involves my members, and we support over 10,000 jobs in Scotland as well.

Q107 **Chair:** Excellent. Thank you all ever so much. It is good to have you with us, Mr Craven. We finally have you online and it all seems to be working perfectly now.

I will kick things off. I know you don't speak for the whole SME sector when it comes to these issues, but we are just trying to get some sort of impression about the scale of the contribution from SMEs like you to the defence sector across Scotland. I don't know if you could help and maybe talk about the range of different enterprises and activities that there are out there. Obviously you can speak about your own experiences as companies, but could you give us some sort of flavour about how the supply chain works, what the size of the support sector is to the defence footprint across Scotland and maybe your own contribution to that?

Dr Costello: On the contribution to defence, defence is only a part of the business that we have, so perhaps Kevin can talk more widely about the SMEs on that point. But certainly from our perspective, we deliver service support throughout the different tiers of the defence sector, to primes most often, to tier 1 companies or below in the various tiers. We are offering our support to help people to manufacture the products either more reliably or to help them with development of new product. Does that answer your question?

Q108 **Chair:** Yes, it does, definitely. All answers are appreciated in this Committee. Mr Mincher, you said you are new to this, and you are just building up contracts and relationships with some of the defence sector across Scotland. Maybe you could tell us if you have found something that has been relatively easy to do or what are some of the difficulties.

Jamie Mincher: Extremely difficult I think is the answer, not in any sense or way because it is set up that way. It is just that the defence sector is absolutely huge. A great analogy I heard is that the MoD buys everything from pencils to nuclear submarines, so to move into that sector can be very challenging.

We have done it through very innovative technology. We are still only supplying tier 1 companies, so we don't supply anything directly to the MoD, but we have spent a huge amount of resource and money developing innovative 3D metal printing. We have been working with two of the world's largest defence contractors to bring that into the defence sphere. We have found that there is a huge appetite for it, because it is able to localise production of pieces and parts, technologies that were previously done overseas.

That has helped us get in. I think if we had not been leading with that technology we probably still would have been struggling to find our way in, so it has definitely been a challenging thing for us. Maybe that is because of our size. We are quite small, we only have 150 people, so it is quite challenging as a small company to be knocking on the door and you have to be quite persistent.

Q109 **Chair:** What about you, Dr Khan? Have you found it a useful relationship? Has it been difficult to try to ensure that you got some of the contracts that you have managed to get in the past few years? Tell us a little bit about your relationship with the MoD, if you can.

Dr Khan: I echo what Jamie has just said. We are a relatively newish, reasonably sized company. We are around 100 people strong here in the UK, though we have a global presence. But space technology and space development within the defence sector has generally been the bag of the prime industries, some of whom you were speaking to earlier in the session today. It has kind of been exclusive that MoD has engaged with those entities fairly regularly and almost individually.

From our perspective, we found it quite challenging to get in and to get in front of those people who would value the technology and the innovative capabilities that we have. Small satellite technology already is quite a novel area of development, and the MoD generally is quite a slow-moving entity. There have been some very good cases. We will talk a little bit about the defence strategy later on, but there have been some innovative accelerator programmes—the Defence and Security Accelerator programme, DASA, and working with the Defence Science and Technology Laboratory, Dstl—and making those connections has allowed us to open some of those doors. But it is relationship building long term and chipping away at that area that allows us to have the visibility. It is definitely challenging but getting better as we move forward.

Q110 **Chair:** What particular expertise do we have in Scotland in space technology? This is a new, emerging and quite dynamic sector now and obviously this is the contribution that your company makes. Could you tell us about how this was recognised and utilised?

Dr Khan: Yes, absolutely. You are right, with space within the UK people are sometimes surprised at how much technology development is going on here, and even more so when you talk about space in Scotland. The ecosystem in Scotland specifically has been on the manufacturing side. There was a little bit of talk earlier on about shipbuilding. If you can imagine, that has been translated from ships in the sea to now ships in the sky, but it is not about the large bus-like satellites that you would normally associate with either defence or communication networks. These are much smaller satellites, satellites the size of a loaf of bread or a cask of wine. These small capabilities, akin to technology on your mobile phone, are able to accelerate what we can do from space.

When we talk about monitoring the earth for earth observation, it is not just optical imagery but also thinking about radio signals that are prevalent across our networks and across the world, where we can take that information and gather valuable resource of what is happening in the earth and put in a view that is both civil and defence-oriented. I think you need to make those things comparative. The capabilities that we develop are not exclusive in a defence regime, but have an access point in that in better communications and transferring large amounts of data through optical capabilities.

As a company, Spire has been developing and leveraging on those new initiatives and new technologies and then providing a market, commercial and defence-oriented, in that regime. Scotland is building that a lot.

Q111 **Chair:** Excellent, thank you. Of course we now have a UK Government defence strategy.

Dr Khan: Absolutely.

Chair: Is there anything that you feel might have been overlooked or missed in that?

Dr Khan: I think there are some real positives in the defence strategy. The biggest thing that we have found very useful in it—and I will come to the negative in a second—is the fact that it is talking a kind of dual use. We also have the National Space Strategy, which is a civil strategy that has come out. There is talk about combining those elements, so not only are we looking at defence and what capability is important in that segment, but how we can make capability that is commercially opportunistic as well as that of defence. The dual-use capability is very important because you are not then just servicing one market.

The challenges of it are that defence industries generally take a long time. The mindset that defence people have in the MoD tends to be very strategically about what they want to do, but has a fairly long-term prospect to it. Some of the technologies are quite quick and can turn things around quite quickly in that timescale, so sometimes that can be a little bit challenging to get them moving forward.

Q112 **Chair:** Thank you. Mr Craven, what opportunities does Scottish shipbuilding present for Scottish SMEs and how do we make sure we maximise the potential and opportunities?

Kevin Craven: The shipbuilding strategy, which we are awaiting as we speak, should present a very significant opportunity, as you heard from colleagues in Babcock and BAE Systems earlier. The specific thing that I think will help is the confirmation of a very long-term plan. There is talk about 30 years and certainty about the length of the plan and the drumbeat of orders within the plan will provide certainty for investment in skills and facilities, which would help enormously. There is a rich heritage of skills in the sector in Scotland and, therefore, we would be confident that Scotland would benefit from it.

Q113 **Chair:** Excellent. ADS has said that the UK Government should accelerate the implementation of the Defence and Security Industrial Strategy and produce a joint UK Government industry implementation plan for 2022. What would you like to see included in that plan?

Kevin Craven: Of course the MoD is getting on with the implementation of DSIS. I would like to see the opportunities maximised through the collaboration of industry and Government in the defence strategy implementation. There is a tendency for MoD to think about the enterprise as a defence buyer-supplier relationship as opposed to a partnership. I think that for maximising the benefits that you could get out of an industrial strategy, collaboration with industry would be fantastic. You heard earlier about the carrier alliance where the types of behaviours, the commercial incentives in the contracts were all best in class and have delivered an incredible product, so doing that on a wider basis would be great to see.

Q114 **Sally-Ann Hart:** Good afternoon to the panel. Looking at the involvement of SMEs in the defence sector, what are the barriers to greater SME involvement and how can they be overcome? I know, Mr Mincher, you mentioned that it was difficult to get into the defence sector. Can you outline what the barriers are and how you propose they are overcome?

Jamie Mincher: If it is okay, I will talk about it just purely from a manufacturing perspective because that is my area of expertise. In Scotland you will see the SME supply chain is a massive part of Scottish industries and a lot of manufacturers in Scotland produce their own products, but a lot manufacture products for other people. That is a difficult skillset to sell directly to the MoD. Often the MoD, for good reasons, is looking to buy a final product and integrate a service, so to develop things for the MoD is often seen as a bit of a barrier unless you have a tier 1 accompanying you. If you are applying for DASA funding, if you are going through Dstl, there are fantastic resources—Dstl is a phenomenal resource—but sometimes that can be a barrier if you don’t have the magnitude of a tier 1 that is selling an integrated platform to go with you.

I am concerned that sometimes smaller SMEs, who have great innovative technology that could be very valuable to the MoD and UK PLC as a whole, might not get the visibility because they don’t have that fellowship of a tier 1 going with them. That could be a very interesting area, to see whether more of that could be leveraged to fund innovative ideas and then match them to larger companies further on down the line.

Sally-Ann Hart: Thank you. Mr Craven, do you have anything to add? Then I will go to Dr Costello.

Kevin Craven: Barriers are very similar in many places, but early market engagement is one of the things that we find is an enormous help to SMEs for getting access to the primes and their procurement departments and working on some of those challenges that the bureaucracy and administration incurs.

There is a number of other things that are encouraging perhaps. I think that local engagement with the SMEs would be very welcome for the regional defence and security clusters that the MoD is proposing to implement in Scotland. There are probably some other commitments within the SME action plan that would be very valuable if implemented in a timely manner.

Dr Costello: I echo a lot of the points just made, but another to add is also to think about the scale of an SME. There is quite a large variation within the categorisation of an SME. It can be under 250 people, but then there are micro SMEs, which are fewer than 10 people. We are very much a small SME. The bureaucracy that exists around working with the MoD, and in fact even the tier 1 companies that feed into the MoD, is exceptionally challenging. In companies of MCS's size, we wear multiple hats, if I can call it that. We have lots of jobs to do and we don't have rooms full of people to fill out forms and get us on to approved vendors lists for various companies. The defence sector is very difficult to work with from that perspective.

There have been some very positive moves and steps forward with the likes of the JOSCAR, so we have a centralised base whereby defence companies can access essentially our clearance to be able to be used in that arena. These things are good positive steps forward, but I think that has to be seen as a clear barrier to entry for SMEs to work with the MoD.

Dr Khan: Yes, very much so. I think typically the MoD likes to work with known entities, with people it knows that are trusted and that have a history behind them and capabilities to be able to deliver and also, as Suzanne said, the manpower to deliver on some of the bureaucratic and more administrative areas.

Trying to get in with the tier 1s can be quite challenging. Sometimes there are competitive areas that we need to be mindful of, but also just having the discussions, getting an initial conversation can be very difficult. When you start looking at manufacturing and technology development, generally you need to have a kind of secure zone within which you can work. That could be a physical space or it could be areas across your development platforms. Again, these are quite difficult for smaller SMEs and even for medium entities.

There is a lot of resource that needs to be put in place for us to be able to come up to even what MoD considers a baseline. Sometimes it is not an absolute requirement, it is just its normal practice is what it wants to see, without going into, "Is it needed for this particular project? Are there some areas where we could be a little bit more creative or a little bit more flexible?" There is almost like this blanket that it is this or it is not. Those challenges for the smaller SMEs and also just having the access points become very challenging.

Sally-Ann Hart: Thank you. Dr Costello, you put your hand up.

Dr Costello: Yes. Hina just reminded me of another point there as she was speaking. I was listening to the previous session and Mr McCann was talking to the fact that they are engaged with working with SMEs. That is a fantastic thing, but I think within tier 1 companies it is important not just to think about the paperwork side of things but the culture that exists and the want to work and the requirement to work with SMEs. I think there is something that could be looked at in how we engage or how SMEs are engaged more with the supply chain.

Sally-Ann Hart: Thank you.

Q115 **Deidre Brock:** I know that Professor Taylor highlighted that however much organisations might want to work with SMEs, it should be remembered that a small product from an SME has to be integrated into a bigger system and often the cost of integrating that small thing into a bigger system is greater than buying the thing in the first place. Is that something that you are familiar with or that you have come across? It might be best for you, Mr Craven, to start with.

Kevin Craven: Inevitably integration with very large supply chains is an issue in engineering terms and in scheduling as well, so it is not straightforward. Generally, the two factors that will impact on those decisions as to whether to make or buy from a third party are around cost and capability. What we have seen in the UK is that our SME supply chain are very agile, very creative and able to work very well with the tier 1 partners. Generally there is a growing tendency for where we can develop local ecosystems for that to be the opportunity of choice.

The encouragement from Government with targets for SME involvement obviously helps in that regard. I think it takes the two things: the suppliers' capabilities but also some gentle encouragement from Government.

Dr Costello: I think that as we move into areas where technology becomes more and more important in the defence sector, it is something that has to be challenged. For example, we use commercial off-the-shelf devices all the time. These are used in all sorts of products, from consumer products all the way up to defence, and now they are integrated into systems without any problems. We have to prove their reliability in certain cases. It is something that my company gets involved with often. There is certainly plenty of opportunity for that to be done. I think that as we move forward it makes more sense to use technologies that are available to lots of sectors and to bring them into the defence sector as well.

Jamie Mincher: It is a good question. Of course, made versus buy is something that comes up in many manufacturing and integration companies and often it is far easier to make it yourself. If you are getting funding for a project, it is often easier to use that funding and develop your own capability, which you are in control of.

As a country, if we want to have a vibrant manufacturing and exporting manufacturing, we need to have a vibrant supply chain and skill base in that supply chain. To keep that skill base and to have the flexibility for SMEs and the innovation that they can provide, rather than monolithic larger supply chains, possibly something that needs to be done is to incentivise larger companies. With funding comes the incentivisation that

SMEs need to be used to provide some of those components. Maybe that is the way to look at it.

I think there is a challenge there because it will be easier for larger companies to do internally, but is that better for the long run in developing the skill base across the UK and developing the innovation that comes with other companies doing the same things?

Dr Khan: I challenge the make versus buy. I am not entirely convinced that it is better to make things yourself rather than to buy it. I think, going on to Mr Mincher's second point, having a supply chain that is capable of delivering things that are technologically advanced and perhaps of more use for the defence sector than for them to develop that capability in-house is a more effective and timely use of their time and resources.

For instance, space technology is a vibrant area across the UK and, if I talk from Spire's perspective, we have a constellation of over 150 satellites currently in orbit. If a defence prime tried to build that, it would take an awful lot of time and an awful lot of resource to be able to do so rather than it comes to us and works with us in whatever capability it is looking to develop.

We are always advancing our own technology, so one of the technologies that we are developing and have tested on orbit is inter-satellite capability. That is using lasers in space to be able to transfer large amounts of data very quickly across a network of satellites. That is capability that we have already developed and are testing on orbit. Surely that is a better plan if that was a capability that was of value within an MoD environment, and I believe it has been identified within the defence strategy.

It is better for it to work with companies that have the in-house capability and then provide it in a way that—again I totally understand—needs to be able to be made in the case that gets ingested through its system, but that is a slightly different problem to deal with than having to build it from scratch. I think that there are definite capabilities and areas of expertise that the defence and MoD environments can absolutely leverage.

Deidre Brock: It is clearly a very exciting, vibrant time for SMEs in this area. I sense a slight amount of frustration—if I could put it that way—Mr Mincher, when you were talking about the size of the MoD. I am putting words in your mouth rather, but I mean the monolithic aspect to the MoD that makes it perhaps a little bit less capable of taking advantage of some of those new developments.

I should say in Professor Taylor's defence, he was saying that in his view we have to find a better way of making sure that SMEs get access to the big contractors. I think that is all. Thank you.

Q116 **Andrew Bowie:** Mr Craven, you said at the beginning that the SME sector you represent as ADS has about 10,000 jobs in Scotland. How many of those are in SMEs and how many of those are in the big three or four majors that operate in the sector?

Kevin Craven: The percentages you heard quoted earlier was between 15% and 20% of most primes is made up of SMEs in their supply chains for output. I do not know the exact number, and I can get back to you perhaps with that, but I believe about 2,000 to 2,500 of those jobs would be SMEs.

Q117 **Andrew Bowie:** As part of the papers we were presented with before this meeting, it is suggested that only 3% of MoD's total UK spending with SMEs is north of the border in Scotland compared to about 54% in the south of England, excluding London. Is that simply because of the concentration of military establishments and, therefore, SMEs attached to those establishments in the south of England, or is there some other reason why there is less spending with SMEs in Scotland than in England?

Kevin Craven: Yes, I think 4% is the actual number. It is a mixture of things. The sector you point to is one of those but generally that regional disparity is writ large across the UK, so Northern Ireland is less than 1% and Scotland's 4% is similar. It does relate to the number of establishments but, also to some legacy issues around the way contracts have been awarded and let. I think it is changing, so that number declined year on year this year but over the last four years it has improved fractionally. The trend is improving, but clearly it has a long way to go before it is anywhere near equitable, so there is a good opportunity for levelling up perhaps.

Andrew Bowie: Thank you. Dr Costello, you put your hand up there.

Dr Costello: Yes. It is an interesting point, and the numbers speak volumes really. I want to make two points. One is that it would be interesting to find out not only what the percentage spent is but how many SMEs that percentage actually goes to. I remark about our own experience working in tier 1 companies within defence. The same tier 1 company is based in Scotland and in the south of England as well. We work far more readily with the company in the south of England than we do in Scotland. That goes to the point I made earlier that I wonder whether there may even be a different issue to address there with how the tier 1 companies interact with SMEs in Scotland.

That goes outside the UK as well. Looking at that again, for the same company within the UK versus the same company in Germany, we spend a lot more time working with Germany. In fact, we do a lot of work with our counterpart and last year there was zero spend with the UK equivalent.

Q118 **Andrew Bowie:** I might be being stupid here—it would not be the first time—but why is that? Why would the same company with such a presence in Scotland interact with you to a much lesser degree than the same company with a base in the south of England and in Germany?

Dr Costello: It is a question I would love to know the answer to as well. We do "meet the buyer" events and the different things that go on to try to improve upon that, but the interaction for us with the company in the south of England just seems to be much more open.

Andrew Bowie: A culture shift is probably required, is it?

Dr Costello: Potentially, yes.

Andrew Bowie: Thank you, Dr Costello. Yes, Mr Craven.

Kevin Craven: Just to illustrate that, I sit on the Defence Suppliers Forum and one of the recent changes brought in by the MoD has been the SME and SME champion joining the executive group of the Defence Suppliers Forum. That has made a difference already in the perception and understanding of some of the issues that the SMEs have experienced.

To the point that a culture change is required, I think that is right. Equally, it is probably sensible to remember that many of these companies have grown through acquisitions, so they may not have a uniform culture within their own company at all. I think that it can be improved.

Q119 **Andrew Bowie:** Thank you, Mr Craven. I will direct this question to Mr Mincher. It follows on the back of what Ms Brock was saying earlier about the monolithic beast that is the Ministry of Defence. Anyone who has any interaction with the Ministry of Defence knows what it can be like. What do you think the MoD could do to engage with and support companies like yourselves to get more involved in the defence sector? You have mentioned already that it does everything from pencil sharpeners or erasers through to Dreadnought-class submarines. What could it do more? We have heard about the appointment of an SME champion. Is that the sort of thing you want to see more of?

Jamie Mincher: I can only answer this from my experience, and I guess that will be from the experience of a manufacturer. I think some of the things that it does really well is the Dstl, which is a great resource for companies getting involved with the MoD for the first time and also the DASA accelerator that was mentioned earlier.

It can be challenging because obviously it is a resource-intensive process to win funding and exposure to the MoD. Probably that is the big thing. It is how to engage more exposure for Scottish SMEs in general to MoD buyers and procurements, whether that is indirectly through the tier 1s or through the MoD itself. It is a huge challenge because, by their nature, big companies are difficult. There are lots of people, lots of decision-makers.

I think focusing on some of those platforms like the Dstl and the DASA and pushing their resources in Scotland with SMEs would probably be a good point.

Andrew Bowie: Thank you, Mr Mincher. Dr Khan.

Dr Khan: The other thing that is worthwhile to mention is the joint aspect that is coming in now. There seems to be more connections across other areas within Government where there are similarities or at least synergies between the work being done. We talked in the previous question about that only 4% of the MoD's budget is coming to Scottish SMEs. In the space environment in Scotland a significantly higher proportion of equivalent space funding is coming in—admittedly not necessarily MoD funded but through the commercial area. I think it is visibility of what the capabilities are in Scotland that is of relevance in that. As Jamie has mentioned, the Dstl and DASA organisations do very much help that, having conversations that allow the back and forward between other areas, whether several or through the industries and the prime sector, to be able to make the visibility in the MoD environment.

Spire was involved in the International Space Pitch Day, which was a programme set up, I believe, in collaboration with the US Department of Defense. That was an interesting forum where you were able to pitch ideas and capabilities that you could develop or had in-house directly to MoD senior members in that area. That was a good way because that opened doors and made it visible that, "These are people who are keen to understand what is going on" but also that there was a conversation that you can start and help move that forward.

Q120 **Andrew Bowie:** You said SMEs in Scotland have a far higher percentage spend when it comes to investing in space technology. Do you think that is something to do with the proximity to the planned spaceports in Scotland, in Shetland especially but possibly Caithness as well?

Dr Khan: I think it is definitely part of it, but it was even prior to the creation of these spaceports or the idea that spaceports was going to be something of real value, which again is not exclusive to Scotland. They are nation-wide. There are sites in Cornwall as well. I think what happened was that in Scotland there was an emergence of capability and understanding of what space can do.

We have talked a little bit about manufacturing that translates directly into space technology but also, on the service and data applications and processing of that information, you have to be able to add value from infrastructure or capability that is developed. From that you see that the service offering is of value to end users.

We talked about the MoD being interested in having something that it can take and put into place within large systems. That is what we need to think about. Rather than just building more bigger satellites or bigger capability or bigger technology, how do we make a change in the way that information is transferred into the MoD and then used within the areas that it is interested in?

Q121 **Andrew Bowie:** This is a thought that crossed my mind in discussions with companies involved in the supply chain to the oil and gas industry, which in my part of the world is a huge driver of the local economy. Do you think that there might be something to be said about the ease with which many of the companies involved in advanced engineering and delivering systems for oil and gas and subsea companies can engage with and enter that sector and that market? The difficulties that they have getting into the defence sector means that many of the companies who could and, if they had been based in other parts of the UK, would probably already be engaging with the MoD, have chosen not to because it is far easier to talk to oil and gas. The increased spend and activity is down to the drawdown of oil and gas and the transition that is ongoing in the north-east of Scotland. Mr Craven, you are nodding your head.

Kevin Craven: I think there is something in that and I can absolutely speak from experience with the aerospace sector where the downturn—we have a roughly 65% downturn due to Covid—has meant that a lot of the SMEs have looked to defence where spend and demand has been more consistent. They made the journey and that jump but they have found it hard.

I think that one of the earlier speakers mentioned the preference of the MoD for known suppliers, so getting to that known stage needs work—pipelines, "meet the buyer" days. The Defence Technology Exploitation Programme is a good example of a programme that will help SMEs. There is a number of things under way that if they are properly implemented will help considerably.

Andrew Bowie: Thank you very much, everybody.

Q122 **Chair:** Can I ask you very quickly what you make of the MoD's SME action plan? One of its ambitions, for example, is that 25% of the procurement spend should be directed towards SMEs. Do you think that is achievable? Is it something you welcome? Could you assure this Committee that this will be much more than a talking shop that virtually might be conducted in front of a Zoom camera? Will it be a real action plan that will produce some real action? I will come to you first on that, Mr Craven.

Kevin Craven: You have to add the caveat of direct or indirect spend. I think that the 25% target if you include indirect spend—that is, through the primes—is absolutely possible and achievable, and I would be surprised if it is not close already. I think that directly with SMEs is much harder because the MoD does not have the capacity to engage with thousands of smaller suppliers. It finds it reasonably hard dealing with some of the big suppliers as well. That could be more challenging, but there is definitely a much wider understanding and awareness of the challenges that SMEs face and the will to engage.

Q123 **Chair:** I think you might have said this but are you on this new Defence Suppliers Forum?

Kevin Craven: Yes.

Q124 **Chair:** You are. What exactly will that be looking at? Is that just a forum for people like yourself and others involved in the sector to come together directly with the MoD?

Kevin Craven: Yes. It is the MoD's forum, and it is co-chaired by Sir Simon Bollom from the DE&S and Norman Bone, who is the UK CEO of Leonardo. There are approximately 10 large suppliers. There is a representative from the mid-tier size suppliers and there is a representative from the SMEs tier in the supply chain sitting on that forum. They discuss and collaborate on a number of workstreams, quite a few workstreams that are helpful in that sort of buyer-supplier relationship. I have sat on that forum for about 10 years now and I have to say that it has improved substantially over that time.

Q125 **Chair:** That is definitely good to hear. What are the views of other contributors of the MoD's SME action plan?

Dr Costello: A couple of points from what we know about that so far. I think it is commitment 4 that established the Defence Technology Exploitation Programme, and we very much support that. The idea is to support collaboration between SMEs and the higher tier companies. To echo some of the points that I think Dr Khan was referring to, we would like to see a multisector capability to that. When we think about where defence is going, it will have to be inclusive of lots of different technologies all coming together. Opening up these sorts of funding applications to companies that can get involved from different sectors and bring together is what we are looking for.

Chair: Fantastic. Thank you ever so much.

Q126 **Douglas Ross:** Good afternoon to our witnesses. Mr Craven, can I start with you? In response to my colleague, Mr Bowie, you said that there is only 4% of defence spend to SMEs in Scotland and there has been improvement. It was largely due to the legacy of how contracts are awarded but you have seen an improvement there. Can you give us an example of those legacy issues and how they are being dealt with at the moment where you are seeing an improvement?

Kevin Craven: I think those figures are per capita spend, so there are probably some issues with the way that they are produced that might need to be taken into account. Generally, the very large spend in, for example, the nuclear enterprise at Aldermaston and the dockyards down at Devonport will be a chunk of that, and Portsmouth Naval Base and so on. There are some establishments where there will be a concentration of spend as well.

Equally, I am not 100% certain that those figures take into account all of the indirect spend on SMEs through the primes. We would have to sense check that to see whether all of that spend has been captured in those figures. They are recently out and probably require a bit of exploration.

Q127 **Douglas Ross:** Sorry, the point I was trying to get at is about how the legacy contracts are awarded. I thought you were suggesting there has been a change and I wondered if you could expand on that at all.

Kevin Craven: If you roll back 10 years or so—and bearing in mind that many of the defence contracts are multi-year awards—it takes time for a new style of procurement and new criteria used in evaluation of awards to feed through. There has definitely been an improvement in the way MoD has viewed the involvement of SMEs in contract awards. In the legacy contracts they would not necessarily have been as extant as they are now and the new elements, like social value and more general prosperity factors, would not be feeding through into that yet either.

Q128 **Douglas Ross:** I will stick with you, Mr Craven, but if anyone else wants to come in on this please just indicate. Do you think there is enough ministerial responsibility or oversight for the role of SMEs in the MoD? Understandably, Secretaries of State and others get involved when there are big contracts and rightly get pictured and such like when big flagship projects are going ahead or completed. Do you think there is enough of a priority placed by Ministers on SMEs within the MoD?

Kevin Craven: From my own experience and the interactions I have had with the Minister for Defence Procurement, who is probably the most relevant Minister for this conversation, SMEs have always been fairly high on his agenda and the co-chair of the SME working group within the Defence Suppliers Forum is the chief commercial officer of the MoD. There is no more senior commercial official within the MoD involved. I think that symbolism and share of mind are there. On effectiveness and these things feeding through into my colleagues around the table to receive the benefits of that will take time. The MoD is an enormous beast, and it is slow to change.

Q129 **Douglas Ross:** Yes. Just to open it up—if no one has any comment on that—how does Scotland fare in providing you with the personnel you need for your individual businesses? Are we doing well enough in prioritising your areas within education at schools and then further in higher education? Are you seeing enough candidates coming through the system in the Scottish education system to provide you with all the needs you have?

Dr Khan: I think that skills have been mentioned in a number of inquiries I have been involved in. Specifically from our sector, there is a skills shortage within the space community and within space sector roles specifically, but it is not necessarily where you might think the roles of the individuals are coming through, the skills and universities and coming into the industry. The skills gap that we have is a little bit further up the line. It is where we are trying to encourage more expertise in areas and specialisations to be able to deliver the very specific capabilities that we want to develop and have that focused attention to the detail. We find that there are skills coming through the universities, and we work very closely with engineering and data science capabilities within aerospace to make sure that we have those skills coming through.

We were talking a little bit about oil and gas earlier and we find that there is a lot of comparative skillsets that we can use from other industries. That is exciting when we look at MoD because there is expertise and experience there of working with the MoD within those sectors that we are able to bring into our industry where we do not have that expertise, so that is able to bridge some of those gaps as well. I think the skills gap is there, but it is a little bit further up the chain for us than right down at the bottom.

Q130 **Douglas Ross:** I absolutely agree with you about some of the skills being transferred across from the MoD. I have Orbex in my constituency and I think one of the reasons it is based out of Forres is because of the close proximity to what was the Kinloss RAF base, now an Army barracks and RAF Lossiemouth. People who leave the forces have a lot of experience and the skills that are required. Does anyone else want to come in on that point?

Dr Costello: It is certainly top of the agenda whenever I speak to my colleagues in the ADS Scotland council meeting. Even in the tier 1 companies getting hold of staff who are skilled and trained in areas that they are looking for is a real challenge. I think colleagues in the previous session talked about that. From an SME perspective, we struggle to find people with the right skills to employ.

Currently, 50% of the people who are working here went through the education system in England and 50% in Scotland. What we are looking for are people who have come through to university level with very good skills and theoretical skills, who can also apply those and have hands-on skills to match. We fear that there will be more of a problem with that after the issues we have had with Covid in recent years and universities having to necessarily work from home. The missing part there is the application of hands-on skills, and we fear we will feel the impact of that for years to come.

Douglas Ross: Mr Mincher, do you have anything to add?

Jamie Mincher: Yes. That is a really good question. Sitting here, it is hard to answer taking out the context of what we are seeing right now post Covid that is obviously bringing more unique challenges. Long term, though, most of our work is hands on. We have a very strong apprenticeship programme. I think a lot of companies may have struggled to keep their apprentices over the last 18 to 24 months. I hope that is not the case, but certainly we worked very hard to keep all of our apprentices on. We train a lot of apprentices, even for a small company. We have, I think, 16 apprentices going through currently.

Is it a challenge? Yes. I think manufacturing and engineering in the UK as a whole may not have the same attraction as once it might have done. We find that sometimes people see certain sectors as being less attractive to work in. Particularly we have found that we have lost people to professional services that offer more flexible working, more things that a traditional manufacturing sector may struggle with, rightly or wrongly. It may be up to us to up our game to that extent and find better ways of doing things. There is a challenge coming up and it will probably be in a couple of years' time when we see the impact of the skillset gap from the people who have not been going to engineering. I think that will be when we see it.

Q131 **Douglas Ross:** You work in an area with the MoD, or Dr Khan within the space industry, that is reserved to the UK Government, but the education issues are devolved to the Scottish Government. Do you feel that there is enough link-up between the two Governments on these issues and do you have enough input into both Governments on particularly the education and training issues? That is to anyone who wants to answer.

Jamie Mincher: I am probably not qualified to answer that, and we are probably too small to get a huge amount of focus from either Government.

Q132 **Douglas Ross:** Dr Costello, you were speaking about some of the groups that you are involved in, and it is the top of your priority. Is there enough joined-up working between the two Governments on issues like this where you are dealing with reserved matters but in the devolved space?

Dr Costello: I am not sure it is so much about the devolved space but more to do with the attractiveness of STEM subjects and engineering in the UK more widely. If you talk about being an engineer in Europe or the US, it is held in pretty high esteem. In this country for some reason there is not the same connotation. If you tell people you are an engineer they assume that you are a technician of some description. There is a bit of a different influence or a different spin on what people understand as engineering and STEM subjects.

I think that that has to be challenged. Children need to understand what it means to be an engineer and to be taught that earlier on in primary school and upwards so that they know why they are learning the STEM skills and what they will be used for, because most children don't understand what that will be at the end of it. I know from personal experience that a lot of the top talent that comes out of university gets directed to banking and finance in the UK, so we lose a lot of the top talent that way. From that point of view, I support the Scottish Government's objective of increasing the quality of jobs for increased growth.

Dr Khan: I am a little bit biased here because I am a STEM ambassador in our local area anyway, so I pride myself on being able to tell people that engineering and science is a very good and useful subject to go forward in. But I totally agree. I think the perception within the UK overall has been that engineering is something that is good, but it may not pay as much or may not be as high flying as a role in banking and finance, for instance. From my own experience, I have a PhD in space science and many of my peers at that time did go into banking and then 10 years later came back to something a little bit more interesting.

I suppose that we have a slight advantage in the space sector. Space has always been very exciting, people get really interested in it, but I try to tell people that it is not all about building rockets and launching rockets and being at that end of the scale. Engineering takes up a whole vast array of roles and applications and being part of that is exciting and useful as well and also that STEM can involve a number of different aspects. It is not just exclusively engineering. I talk to the data science that Suzanne was talking about—the analytics and the processing that needs to be done. We get a lot of applications from gamers because of the way that they can visualise 3D concepts in virtual reality forums, which is very much what we need to do in the space segment.

It is educating and opening up young people's views on what it means to go into these various different sectors and the applications and jobs that you could get as a result of that. I think that there is still work to be done there and I try my best to educate as I go along.

Douglas Ross: Mr Craven, do you want to add anything?

Kevin Craven: No, only that I don't think it is necessarily a question of the devolved nature of it. I agree with Suzanne that there is an issue around the perception of engineering in society generally and there is more we could do. I am an engineer, and I could not persuade my kids to become engineers, frankly.

Douglas Ross: Try being an MP and trying to persuade them to follow my career. Thank you all for your time.

Q133 **Chair:** We will leave that about the politics just where it is. Dr Khan is one of the few people who could legitimately say it is not rocket science. I will just finish this session off. It has been fascinating and thank you for that. When you look at the whole environment for SMEs and the defence sector and you see the changing nature of some of the initiatives that have been brought forward, whether that is through the Scottish Government or UK Government, are you looking at your businesses with confidence about growing and development or are you looking at it with trepidation? Give us a sense of where you see yourselves going in the next few years. Is it a positive destination or is it something that you fear a little bit?

Dr Costello: Yes, definitely positive looking forward. We have the benefit of working across many sectors, but defence is one that we want to be more engaged with. We have read about attractive propositions recently, so I think that overall we are optimistic.

Dr Khan: Yes, absolutely optimistic. The Defence Space Strategy and the National Space Strategy have been launched, and those two documents have been widely anticipated and waited on with bated breath to get these things through. We have them now and I think that the way that they are marrying together and being delivered in tandem is exciting. Also there is a funding envelope attached to the defence strategy, which is always nice so you can see the tangible efforts that are being put into it. As an SME and an industry partner, we can look at where we can offer value add into that and make the connections going forward.

Q134 **Chair:** Mr Mincher, is it something that you are looking forward to, as somebody relatively new to this sector?

Jamie Mincher: Yes. There is no doubt that the last couple of years have been challenging—and I think they have been challenging for most manufacturing companies—but there is huge excitement in the defence sector. It has been fairly consistent throughout the last couple of years, and I think a lot of people see that as a big benefit. Anything that can be done to push engagement of the defence sector of SMEs will be beneficial to companies like ours for our growth, and it is keeping the skillset. For every job we have in manufacturing that is involved in the defence sector, we are also selling that type of service and skill to multiple other sectors.

As I said, most of our product is exported, which has to be good. I think that the more we can do that, the more we can make, the more we can export, whether that is products or ideas, has to be a benefit. If the defence sector can help develop and grow that within the UK it has to be a fantastic win all round.

Kevin Craven: Defence is an incredibly important part of the Scottish economy and we have seen our membership in the defence sector grow during this period. Some of that is down to the aerospace downturn, but it is a positive outlook.

Chair: A very positive note. We will have to end this session today but thank you all ever so much for joining us and helping us out with this inquiry. If there is anything else that you feel you could usefully contribute, please get in touch with the Committee again, but for today thank you.