

Surveying the land Why land capabilities are crucial for success on the modern battlefield 100925.wav

Henrik Graff-Hedberg: [00:00:00] Very much. Welcome to this panel. Why land are crucial for land capabilities are crucial for success on the modern battlefield. My name is Henrik Graff-Hedberg, and I am director of communications for BAE Systems Bofors. How we will do this is that we will have 30 minutes up here on stage, and then I will leave the questions to you, the audience. So just raise your hand if you want to ask a question, and we will make sure that you get to do so. With me, I have an excellent panel of Brian Gathright, Vice President, Business Development for Platform and Services. John Borton, managing director of Weapon Systems UK, and Stefan Lofstrom, director of marketing and sales at BAE Systems Bofors. Very much welcome. I will start with you, Brian, and I'm thinking sort of that we go a little bit to get the big picture. How important are land capabilities for modern militaries and also how relevant, if you look in the crystal ball, how relevant would they be in the future?

Brian Gathright: [00:01:31] Yeah, I think to answer that question, the first place I went was thinking to two days ago, four years ago, pre Ukraine invasion, there would have been some scholars that said a land combat of the scale that we've seen would never happen again. Was not relevant to how you win wars. Everything would be precision missile based large standoff. And yet here we are, four years later, in the midst of one of the largest land conflicts we've seen in Europe in certainly the largest in the 21st century. And I think there's a lot to learn from that. Not every lesson from Ukraine is applicable to future wars, but there's certainly a lot to take away. And it's a reminder that scale and mass absolutely matters. It is complimentary to precision. And so I think balancing that is very important. You know, we've seen the absolute necessity of interoperability as the means to deliver that, both from the scale of industry as well as nations working together to deliver capability. And of course, that plus the need for greater C2, C4 integration, multi-domain awareness is driving that requirement for better digital engineering. And so, you know, all of these are driving us in a direction of improved capabilities for land platforms and the absolute relevance of land platforms. Simultaneously, there is no greater innovator than Then necessity and war is absolutely something that drives that necessity for innovation.

Brian Gathright: [00:03:03] So as we see drones encounter UAS as a response to drones, the ability to defend IFVs and make them relevant in a world where top attack and survivability from other threats than the ones that we typically thought about from the global war on terror, shows that land must continue to innovate. And so that's really where our focus is. And as I think about that, from what we do as industry, it's about how can we incrementally upgrade these very, large and important platforms that are delivered at scale to stay relevant over the course of conflict and into the next generation. And so for us, that starts a lot with how do we deliver that scale. And it's one thing for us to talk about our capacity and the capabilities that we have within our deliveries. But it's a really important part for us to talk about what we do with our supply chain and how do we make that supply chain more resilient? So, you see us really rely upon industrial partners everywhere we go. And that's an important part of what we do. And so I think, coming kind of full circle land is absolutely relevant to the battle space of today and will be anytime there's a need to take and maintain control of territory, which is fundamental to what ultimately this comes down to.

Henrik Graff-Hedberg: [00:04:27] Thank you. I will let in John and then Stefan as well.

John Borton: [00:04:32] I appreciate that, Henrik. Just echoing Brian's points, but it's probably saying, thinking about the changing nature of what land capabilities are going to look like. You sort of seeing it in Ukraine at the moment where, you know, we're seeing this real mix of capabilities of, you know, legacy platforms that are very reliable, mixed in with more technologically advanced and that innovation that's being driven there. So you're seeing the importance of land still remaining very relevant. But the nature of how land is operating very much changing as we look forward. I can only see that accelerating. Yes.

Henrik Graff-Hedberg: [00:05:09] Stefan.

Stefan Lofstrom: [00:05:10] Yeah. Thank you. I can only agree with Brian and John that it's our role in the industry to deliver capabilities that are adaptable, modular and interoperable for the future battle space. Also, already today, I mean, we deliver world class capabilities to our customers. What we also need to do is adapt how we produce them, our ability to scale up to meet the demand, but also how to rapidly integrate new

capabilities, new technologies from partners to make sure or ensure that our customers are getting what they're looking for, for the future.

Henrik Graff-Hedberg: [00:05:50] Thank you. Two years ago, we were here as well. A lot of things has happened and a lot of things have changed in these two years. I will begin with you, Stefan. Begin where I ended. What changes have you seen when it comes to Europe's militaries and how they are operating since DSEI two years ago? And also a cling on question to that would be like how has that influenced how you meet? And I will give the, word to everyone but how you meet those needs.

Stefan Lofstrom: [00:06:30] Yeah. Thank you. I mean, we have been watching the market space closely, of course, since DSEI, since two years ago. How things have evolved. We are constantly tweaking and adapting and evolving our capabilities, our offerings to the market. One example is in the air defence domain where we have see the threat from weaponized drones just growing every week, basically. And this is something we have looked into how we can defeat that in a more cost efficient way. And one example of that is the air defence solution that we have from BAE Systems Bofors to Trident Mk two 40 millimetre air defence system. Drawing up on the experience that we have built over the past 90 years with 40 millimetre air defence cannons putting this in place. So that's something, as an example that we are working on. We had a really successful live firing demonstration, working in a collaborative way with the Swedish Army and our Swedish customer FMV. So in June we performed this in Sweden with complex counter-UAS scenarios where we engage different kinds of drones and very successfully, I must say. And this capability was developed in a very, very rapid manner in a IPT model with the Swedish customer and the Swedish Army. Very, very quick to the market to see that demand.

Henrik Graff-Hedberg: [00:07:55] John, your perspective of these two years.

John Borton: [00:07:59] So, I guess one of the main changes I've seen is the the pace and urgency from some of the customers as well as them exploring more with industry about how do we give them solutions. And they're looking for us to be able to help them solve their problems. And we see that with regards to industrial capacity and we see it with regards to how do we bring the best capabilities to our customers, to our militaries that can give them the effect that they're looking for. As we look to continually evolve

how they operate and one of the examples where we've done that is around from an autonomy space partnering. We announced last year that we signed a strategic collaboration agreement with a US autonomy company called Forterra. They're working very closely with the US Army on bringing autonomy to the US Army. We're looking at bringing that into the uncrewed space, with our platform bringing best of the breed to be able to ensure that products that we're offering have the best capabilities that satisfy the growing demands of our militaries going forward.

Henrik Graff-Hedberg: [00:09:09] Brian, anything you would like to add?

Brian Gathright: [00:09:13] I think Stefan and John covered it quite well, but I think one of the things that gives me confidence in what we do from industry is, just kind of coming back to the example that Stefan offered around Trident, established developed systems integrated with a specific focus to a new mission application need. And that's something we can do rapidly. And I think that really gets at the customer's desire to solve problems quickly. It doesn't need to be grandiose long waterfall development programs. This can be done in near real time, using capable systems, bringing them together to solve new mission problems. And so that's leading us to how we develop various mission application packages, whether we're looking at CV 90 and applications there, or with our US platforms around new mission modules that give new capability into those packages and allow platforms to be more adaptable to serve multiple missions and kind of increase the buying power of our customers to get kind of more, utility out of our systems.

Henrik Graff-Hedberg: [00:10:21] And we also have seen changes in how the customer comes to us and how they want to approach us when it comes to these, like time is important. And would you like to develop that, Stefan?

Stefan Lofstrom: [00:10:34] Yeah, absolutely. Yeah. So, more partnerships with our customers to meet their demands work together collectively to rapidly introduce new capabilities to the market. That's absolutely decisive for the future. So, I see more and more of that.

Henrik Graff-Hedberg: [00:10:52] Yes. And on that note, I would like to ask you, Brian, Start with you. What are the most important aspects to consider in the land capability procurement space?

Brian Gathright: [00:11:05] I mean, we talk a lot about interoperability and design, but I think it's also important to think about how nations procure and process and its speed to contract as much as it is speed to delivery. So the ability to get, where budgets are being approved, get that money to be obligated in a very efficient manner. So that's something that we, from defence industry one, have things that we should work on from our side, but also can be a trusted partner to our customers to help them. And several are going through defence acquisition reform to improve the rapidity of that process. So I think that's really important. And then, I think I can't emphasize enough like I said, we often very get focused on our capacity what can we deliver from our production line. But that is so dependent upon the capabilities of our supply chain. And naturally, you develop trusted suppliers that become, you know, single source over times and down cycles in the market. But you absolutely need robust in that supply chain. I think one of the things that definitely, whether it was Covid and certainly, you know, the experience in Europe through the Ukrainian conflict has taught us it's robustly through that entire supply chain logistics system.

Brian Gathright: [00:12:25] It's not just, do I have a supplier that can deliver? Do I have redundant suppliers? What is that logistics tail looks like to get that to me? What does it look like to get that fielded. Particularly when we're at such a high sustaining tempo for our products in the field. And I think for us, that's led to growing greater partnerships. It's always been part of our DNA particularly in Europe. But for our American products of greater focus on how do we partner to do maintenance, repair and overhaul and upgrades with companies in partner nations. We recently signed an agreement in Poland for the support of the M88 Hercules to both support and sustain that platform in Poland, as well as, do you know, polarization upgrades that are that are inherently tied to the requirements unique to Poland. So, we're doing more of that, and we're looking at ways that we can actually license elements of production, whether that's, starting kind of assembly, integration and test or all the way back to kind of full product development. And, kind of the total end cycle with, with partners. So that's, that's a key part of some of the things that we're really focused on in the procurement space.

Henrik Graff-Hedberg: [00:13:36] And we are ready to deliver what the clients want.

Brian Gathright: [00:13:40] That's right. And we need those partnerships to be able to do it at scale, at speed. And really, come back to that part where I started this answer, which is around the procurement process. And how do you get that right? Yeah.

Henrik Graff-Hedberg: [00:13:55] John.

John Borton: [00:13:57] So, I've got a couple of points here. So, one being it's getting in an understanding your customers problem. So, we can make sure we offer the right solution. And we offer as BAE Systems a wide range of solutions that on the face of it, look like they solve the same problem. But actually, having the customers are increasingly looking at how do you have a blended approach to their fleets, to their acquisition and procurement space to ensure that they have the right balance of capabilities to deliver, the output that they're looking for. And then secondly, building on Brian's point, seeing industrialization, localization being key as part of any procurement at the moment, I don't think I've had a conversation with a customer that doesn't at least have some sort of conversation about efforts to localize or industrialize in that country of choice. We have experience with doing that. We did it originally with 777 in the US. We've done it again in India. And with all future customers that we're having dialogues with at the moment, regardless of the product, we continue to explore options around industrialization, localization.

Henrik Graff-Hedberg: [00:15:06] Anything you'd like to add, Stefan?

Stefan Lofstrom: [00:15:10] Yeah. Thank you. Two, points that I wanted to highlight. One is like we were talking about security of supply. Every customer is looking for security of supply these days to have sovereign capabilities in country, which is something we are working on with our customers and partners to deliver that. That's really a trend that we can see. And the other thing is more on the European context maybe is to export control policy. If we could harmonize European export control policy, that would streamline and make.

Henrik Graff-Hedberg: [00:15:44] Yes.

Stefan Lofstrom: [00:15:45] Procurements more efficient, for sure.

Henrik Graff-Hedberg: [00:15:48] A little question on that. Have you seen a difference when it comes to like you are from Sweden. Has there been a change since we joined NATO?

Stefan Lofstrom: [00:16:01] Yes, we have seen some change in policy making with regards to export control for sure. Absolutely. But there is more to do. We know this is a topic that the governments are talking about. We have that conversation with the Swedish government representatives, so we know it's on their agenda. So good.

Henrik Graff-Hedberg: [00:16:21] John, I would like to ask you. We have seen that artillery has been a key capability in Ukraine. How is the BAE Systems supporting the United Kingdom's government's ambitions to sustain and revitalize vital UK artillery capabilities?

John Borton: [00:16:48] Great question. So recent conflicts have shown the importance of artillery. Now being recalled, the king of battle. And we offer a number of different capabilities as BAE systems from a UK perspective obviously we have the MFP program that is been awarded and that that will start to deliver in the rest of this decade. But from BAE Systems perspective and from an industry perspective, we need to be looking at our capacity and being able to ensure that we can deliver the evolving needs of the customers, ensuring that we have pace. So from a from our perspective, we have just opened our new artillery factory in Sheffield. That was on the back of a 162 million order to get back into production for our M77 howitzer with the US Army, and that is really the start of us being able to bring back a really critical capability that has not been sort of atrophied over time with sort of pre-conflict and pre Ukraine. And I think it's just showing from a number of different areas, that how important it is for the industrial capacity to be ready to respond, because if Ukraine has taught us anything, is I don't think that Europe was ready for what was required from industry to be able to support a conflict of such a scale. And the industry has a part to play in that for sure.

Henrik Graff-Hedberg: [00:18:13] Artillery as a key capability in Ukraine. You also have a perspective on that.

Stefan Lofstrom: [00:18:20] Yes. Thank you Henrich. Yeah, absolutely. So, Sweden has donated a number of Archer Mobile howitzers to Ukraine. We are getting first hand experience from the Ukrainian army on how that works. And they are really, really positive with Archer. We are working every day to support the Ukrainians on the battlefield. But now also I would like to mention that Archer is operational within the British Army, and we have been working together with the Army here to to make that happen in a very quick time. With everything including training, in-service support, solutions, but also qualification of UK ammunition into Archer. So now it's operational in the British Army. It's already been used abroad in expeditionary. In Estonia for example.

Henrik Graff-Hedberg: [00:19:04] So anything you like to.

Brian Gathright: [00:19:06] Yeah I'll add a little bit of an American perspective to this. You know, and where we've seen we're now collaborating with our US Army customer around upgrades to the to the long steady M109 product line, looking at integrating a 52 caliber cannon to extend range. But that's a starting point. There's a lot of howitzer systems with the 52 cal cannon simultaneously, our focus has been around, in the Army's words, for this is innovation at the round. And part of that has been developing new rounds that further extend the lethality and range of our howitzer systems. So I'm really excited about those developments. We'll show more of that at AUSA teaser. And at the same time, there's an interesting piece of of kind of cross service collaboration that we're seeing between the Army and Navy around what we've called our hypervelocity projectile and different applications, but relevant for both the indirect fires missions for the Army, as well as in the Counter-UAS and swarm protection for the Navy. And that's generated again, you know, kind of coming back to that theme of taking developing new products, but also looking at how do I position products that have been in the portfolio of our customers to serve new mission needs is just as important, because that's really that speed of relevance. And so a lot going on in that space. And I kind of come back to where I started today with you know, I think 2021, there was there was papers out there that said artillery is dead. Well, long live the king of battle.

Henrik Graff-Hedberg: [00:20:39] Amen. We talked about speed. And speed is something we have learned. Here in this panel, you have shown and I have shown as a host that speed is really what we have done here. So we actually are finished with the first questions and I would open up to the public. Very efficient. Yes.

Stefan Lofstrom: [00:21:18] Good morning.

Rudy Ruitenberg: [00:21:19] I think we're still morning. Good afternoon.

Henrik Graff-Hedberg: [00:21:21] Somewhere.

Rudy Ruitenberg: [00:21:23] Good afternoon, Rudy Ruitenberg for Defence News. Just a quick question about all the capacity that we're seeing installed. Obviously there's a big surge right now. And that'll probably continue to produce for the next 8 to 10 years. But what happens then? Because you're going to be stuck with a lot of capacity, a lot of capital invested. How is that going to work out in the longer term in terms of leverage?

Henrik Graff-Hedberg: [00:21:51] Brian.

Brian Gathright: [00:21:52] Yeah, I'll take a shot at kind of starting that conversation. You know, part of our strategy is, is how do we diversify where that capacity is placed? It would be imprudent to just capitalize a singular facility to the scale that we need. So leveraging our partners, our industrial partners, as well as capacity within within our allied partner nations is part of this. And so that does give a much more effective means to, to kind of dial this capacity over time to both continue to scale. Today, we are not at the scale of the peak of, the challenge. And so we've got more to continue to do to meet the challenge of today, but also whenever, hopefully someday this scale can turn back because the threat is not the threat that we see today. Be able to utilize our industrial partners to dial this back in a rational manner and not the kind of, you know rapid roller coasters that we've seen in the past. And so we're trying to take those examples that we've learned, whether it be from the global war on terror or just over the long life cycles of defence programs, to make sure we can do that prudently.

John Borton: [00:23:05] So I'll take a view. So we're taking a blended view about how we look at our capacity. And Brian touched on this point around it's not just our capacity as BAE Systems, but it's our supply chains capacity as well. It's our partners capacity. And being smart about how we look at our investment choices to ensure that we are not overcapacity, but we're making sure we're finding that right sweet spot to ensure that we are delivering what is required in the now, but also looking at where does that go for the

future? I would also say that we talk about 5 to 10 years from now. I talked about the evolving changes in needs from militaries around the world. We look it may not be the same products that will be going through those production lines, but it will be an evolving mix of solutions that we will continue to keep our factories fed and full.

Henrik Graff-Hedberg: [00:23:59] Stefan.

Stefan Lofstrom: [00:24:00] Yeah. Just to add to that. Yeah, we are working. I mean, it's our responsibility as OEMs to establish robust, resilient supply chains. Basically, we're working closely with our main suppliers, our partners, to make that happen short term and long term and calibrate that scale, that capacity that they need to have to support us.

Rudy Ruitenber: [00:24:22] Can I just ask a question?

Henrik Graff-Hedberg: [00:24:24] Absolutely.

Rudy Ruitenber: [00:24:29] Does that work?

Henrik Graff-Hedberg: [00:24:30] Yeah.

Rudy Ruitenber: [00:24:31] So just to ask a follow up question, if I may. It's about because obviously we've seen some governments asking for more government contribution into sorry for more corporate contribution into the scale up. Do you think there needs to be more government support, or is this something that you see as more corporate driven.

Brian Gathright: [00:24:52] I'll start. I would actually say we've seen a really good balance of this one, kind of just listening to my colleagues here. One of the key features has been the recognition by our governments that industrial capacity is not a light bulb. It does not turn on a switch. And so I think a recognition of that has really brought a renewed level of government and industry co-operation about how we invest in capacity. And so we've seen strong support in each of the three countries that's represented by the three of us both in the dialogue and in the financing of how we put additional capacity into place. And I think that also kind of builds the skin in the game,

as you think, ten years or beyond in the future of what's the right kind of dialling mechanism to rationalize this capacity when, the demand signal is not the version that it is today.

John Borton: [00:25:50] Yeah. No, I appreciate that, Brian. I think it's both is the answer. The industry will struggle to make a case to invest without a clear demand signal about how it's going to make the return. And that requires dialogue, collaboration. And Brian's point of I think there were some surprises about some of the I'm going to use the word fragilities of the industrial base when the Ukraine conflict kicked off and there wasn't just this switch that people could turn on. And it's actually 12 months to be able to build a factory even doing it at the pace of some of some of the Ukrainian companies are doing it at. And so, having that collaborative approach between industry and government and armed forces to ensure that we are right sizing our industrial base, both from OEMs perspective, but then our ecosystem and our supply chain as well, but making sure that that's balanced to the growing needs and evolving needs of our our customers and our forces going forwards.

Henrik Graff-Hedberg: [00:26:51] Stefan.

Stefan Lofstrom: [00:26:52] Yeah. Thank you. Hendrik. I mean, I agree fully with John and Brian on this. And the best way for our customers to approach this is to place long term agreements with us. And that's what we are discussing, especially with our respective home governments, of course, but also internationally. So really long-term contracts, which creates an environment where we can predict the demand over time.

Henrik Graff-Hedberg: [00:27:17] Excellent. Any other questions?

Sarah Young: [00:27:23] Hi, I'm Sarah Young from Reuters. I just wanted to ask you, Stefan, about what you said about sovereign capability in country that being a trend. Can you talk a bit more about that? Give us some examples.

Stefan Lofstrom: [00:27:35] Yeah, sure. I'll do my best. I mean, a lot of customers are looking for their security of supply, either formally like formal offset requirements or informally in different mechanisms. And we see that clear trend. We are working with the different customers to approach that in the best way. It has to be cost effective for

them and for us, of course. And there is not one solution that suits everybody, basically. So, we are looking at different ways to meet that demand. It could be done in different ways, either as building up production in-country or MRO facilities in countries for the sustainment phase of a product or capability, or there are other elements as well that we're working on.

Henrik Graff-Hedberg: [00:28:24] Follow up

Sarah Young: [00:28:25] Any examples that you can talk about.

Stefan Lofstrom: [00:28:30] No example that I have on top of my mind right now, but we know I mean, this is a very live discussion in, Europe. We have several European countries that have this. These requirements that we are working on right now.

Brian Gathright: [00:28:47] Yeah. I mean, I'll just, you know, kind of chime in with the example of what we're doing with M88. You know, I think every partner nation wants to be able to maintain, repair and overhaul their capability in country. So that's that, that is almost become table stakes for us as a starting point of how we look at, sovereign capability, assurance of supply and our industrial co-operation approach. So, it starts there, but it's growing deeper of how do we bring parts of the supply chain into a particular country, particularly around the sustainment piece over time. So, I think all three of our, respective kind of approaches to market with our products really kind of start with that foundation and you'll see pieces of that in just about every. Whether it's our home markets or in our export opportunities.

Henrik Graff-Hedberg: [00:29:38] Thank you. Yes.

Rudy Ruitenberg: [00:29:42] I do have a question. Sorry. Rudy Ruitenberg with Defense News again. So, obviously, as you're looking for that flexibility. We've seen some developments, for example, in Europe where companies are looking at automotive capacity and turning that to military production. But I mean, if you're manufacturing an archer, you've obviously got some you know, CNC machinery that's that's fit for purpose and that's not going to manufacture an APC. So how do you deal with that, with that flexibility in manufacturing and insight?

Brian Gathright: [00:30:19] Yeah, I think one of the things that we've seen is we've continued to look at partner opportunities is capability that actually is germane to defence. And so our ability to, to look at how can we license more elements of our production so that we, again, we're not overinvesting into capitalization at a singular point has been a focal point for us. And I think, you know, across Europe, there is there is strong capability to, bring to bear in the examples you gave around CNC welding, you know, critical parts of what we do in the in the armoured combat vehicle business. So there are opportunities that that it's not. And in fact, we've seen some places where some of those commercial vendors are looking to us as they see opportunities for their products in the defence space.

Henrik Graff-Hedberg: [00:31:06] Stefan.

Stefan Lofstrom: [00:31:07] Yeah. To add to that, what Brian said, we are looking at different ways to be innovative not only in our product offerings, but also in our production methods and how we manufacture, how we produce our products. So we have some interesting new production methods that we are looking to put in place very soon. Not to give out everything right now, but yes, more to come.

John Borton: [00:31:34] Thanks for the tip, Brian. So one of the things that we announced last week talking about how, let's say, automotive suppliers are looking into the defence market and it links very much to the industrialization localization point as well, is as we signed an agreement with General Motors Defence to bring their vehicles into the UK market to support a British Army need that is evolving. And us as a defence company, actually partnering with an automotive company to then offer capacity in the UK, building on those skills that we have. I mean, our core competencies as an organization is indirect fires and titanium welding, but making sure that we diversify into the evolving needs of our customers and partnering what we believe being best of breed from a scale perspective, to be able to have a a team that can go and deliver what the British Army needs.

Henrik Graff-Hedberg: [00:32:30] Any other questions? All right. It looks like we delivered on time or ahead of time.

John Borton: [00:32:43] Efficient.

Henrik Graff-Hedberg: [00:32:44] Thank you very much.

Brian Gathright: [00:32:45] Thank you. Henrik.

Henrik Graff-Hedberg: [00:32:45] Thank you.

Stefan Lofstrom: [00:32:46] Well done Henrik.

Henrik Graff-Hedberg: [00:32:47] Thank you and thank you.