RPM—Ep. 49 | Responsible use in DUT and defense investing with Suzanne Tavill and Brooke Latham

AM: Welcome to RPM, the podcast where we explore the world of private markets. I'm your host, Anna Marcus. In today's episode, you'll hear a conversation between Suzanne Tavill, Partner and Head of Responsible Investment at StepStone, and special guest Brooke Latham, Head of Sustainability at the NATO Innovation Fund. Together, they explore dual-use technology and investing in the defense sector, focusing in particular on the concept of responsible use. From AI and autonomous systems to energy security, they also cover how geopolitical shifts are redefining defense priorities, why traditional ESG frameworks may fall short, and what it takes to build governance models that can keep pace with high-stakes, fast-moving innovation. Let's get into it.

ST: Hello and welcome to our podcast on dual use technology and investing in the defense sector. The discussion today will be between myself, Suzanne Tavill. I'm global head of responsible investment for Stepstone Group, and today I'm really excited to be joined by Brooke Latham, who's head of sustainability at the NATO Innovation Fund. She joined the fund last year in January to lead their efforts on sustainability, climate security and responsible use. And we are particularly going to be drilling into the topic around responsible use. Brooke, welcome and can you give a bit of color for our listeners about what is the NATO Innovation Fund?

BL: Thank you, Suzanne, for having me today, thrilled to be here. Um, the NATO Innovation Fund was set up officially in 2023, and we're deploying €1 billion euros across 24 of the 32 member states of NATO and investing in dual use technologies to address some of the most critical challenges across defense, security and resilience.

ST: So, as you can see, Brooke is perfectly positioned for this discussion. You know, on our estimation, this is one of the largest pools of capital investing across these areas, and given the fact that, as you've heard, it's funded directly by the member states, it's a pretty interesting sort of viewpoint and position to be having. Let's focus on the fact that the war in Ukraine, the ramping of China's military spend, the election of Donald Trump together have all certainly turned the spotlight on defense. Who is spending what, how much, on what? For those of us looking at this space, we've certainly noticed even before Trump, quite a number of jurisdictions coming out with strategic plans about the defense, and their defense needs and defense spending, and some of the common threads from all these papers globally really were saying that more needed to be spent on defense. But what they were spending on that had to change. So, Brooke, given your interesting position in this ecosystem, what are you seeing that defense forces are needing to spend on? And how is that influencing what the NATO Innovation Fund is looking at?

BL: Yeah, absolutely. Even just in the past two years, we've seen a rapid increase of interest from the innovation ecosystem. Governments, venture capital, even as the NIF was getting set up, there was still kind of taboo around investing in defense. But when NATO set up the fund, was how to keep that technological edge for and bolster our collective security across the alliance. So that has definitely changed with the war in Ukraine. I think the most obvious example is the use of unmanned

systems, whether that's drones, unmanned ground vehicles...But with any kind of enhancing autonomous capabilities comes with that ecosystem, whether that is, you know, being able to operate in a GPS denied environment, the sensors that are used, electronic warfare. In additionally, defense security resilience goes beyond what's happening on the battlefield, and I think especially in Europe, we felt this in terms of energy security. So, whether that is renewable energy sources, wind, nuclear fusion and fission, whether that's far off, it is still pressing that we invest in today to be able to have a sovereign and secure energy system for Europe. So, like thinking in terms of what's our broader security and resilience? I think another broad area that is increasing is also space, and especially in the dual use technologies, because space Earth observation, in terms of the satellite technology that's been able to increase or looking across, for instance, Starlink was able to provide so much access and capabilities for troops in Ukraine.

ST: You know, so this is so interesting because, you know, when we think about what military needs to be spending on, we really have to understand how the nature of threats have changed so dramatically. And as you highlight whether it's virtual threats, you know, which are feeding into threatening energy systems, whether it's now space, deep sea, underwater, you know, these are not the traditional spaces that I think people think about when they think about defense. And I love the fact that you mentioned Starlink, because for me, it certainly hit home that one of the first things Zelenskyy asked for from Trump was ensuring that the Starlink platform was maintained as available for the Ukraine. And that, for me, is sort of really the epitomizes what we're talking about with dual use technology. You know, something that is available for civilian but then also for military use.

BL: It also could be used in terms of materials. Um, one of our portfolio companies, Icomat is a carbon fiber company, a composite, and they're able to make carbon fiber 30% lighter, so that could be used for a commercial aircraft but could also be used for a military aircraft. And thinking in terms of that's less material used, but also anything lighter requires less energy as well. So, any of these capabilities also have potential environmental impacts in terms of long-term resilience.

ST: Yeah, that's pretty amazing. So, when people think about dual use technology, people are not necessarily thinking about is the ethics or the frameworks of a of responsible use. So, this is very much in your area of focus, and one thing that I found interesting when I started to look at this was just, in fact, how much the military had spent time on evolving a framework of ethical thinking, ethical behavior. And we see that very much reflected in some of the work NATO has done around responsible use. And I know this is something that you've been very involved in, so, it'd be really helpful for you to take us through, you know, what, what is being developed, and then we'll talk a bit about how it's getting applied.

BL: Yeah, absolutely. So, in 2021, NATO created their AI and autonomy strategy. And at that same time, they developed NATO's principles of responsible use for AI in defense. So, I think it's important to note that when they put out of how AI is going to be used in military context. At the same time, it was equally this AI needs to be developed responsibly. And so, they created the six principles of responsible use high level principles such as accountability, lawfulness, traceability, explainability. Many of the large tech organizations like Google or Microsoft have put out similar principles. In this case, the principles have been voted upon by all 32 members of NATO.

And that's really to make sure that any of the technologies being used are designed, developed and deployed safely for the end users, the operators and society at large.

And so, with NIF, it was extremely important that at the same time that any of the technologies we're investing in and that we're helping grow and scale, carry along and are guided by those same principles. So, for the past year and a half, I have had the honor and opportunity to work with NATO headquarters on How do you take those principles, such as explainability in an AI model? And not only how do you guide entrepreneurs and startups to make sure that they're building responsibly, but I think what's more tricky, and what I'm excited about for this conversation, is how, as investors, do you assess a company whether this is a startup that's 15 people and just has kind of an initial product? How do you make sure and assess that the leadership team is understands the risks, unintended consequences, and is capable of designing responsibly, moving forward? Or if they do have a more advanced product and it's already being used in conflict in Ukraine, how do you assess that as an investor? Because typically a lot of the traditional ESG frameworks can tend to be much more checklist. It might ask, does this company have a code of conduct? Does this company have an ethics policy? And while dealing with dual use technologies, those questions they just scratch the surface of the actual risks. So, we really wanted to focus on how do you build a framework that can analyze the technical risks, while also understanding the difference between use cases? And a large part of this is the governance around risk identification and risk mitigation.

ST: That is super, super helpful, because this really is the meat of the issue, because, you know, as you've highlighted and you put out a really interesting paper, which I encourage our listeners to have a look at, which is called Responsible Investing in Defense, Security and Resilience. In that you make the comment that ESG checklists do not suffice, and I think, you know, what you've highlighted here is the fact that when you are developing a technology or application, how do you really embed good systems and processes to ensure that it is what is getting built is highly responsible Super interesting. Let's bring it to life, if you've got an example for us.

BL: Yeah, I think it's making sure it's not only of designing responsibly no matter the product, but then at that product level, designing a capability and having those design parameters around it so that a technology is can only operate for what it was designed for, because that's where the risks can come about is when you know something is used when it wasn't initially purposed for. So, I think a great example and one of the more common ones, but probably the easiest to bring to life is a drone. So, thinking this could be used for intelligence, oftentimes used in reconnaissance or intelligence gathering, border control, maritime surveillance, how do you assess and do a due diligence from a responsible use perspective, it really comes down to a lot of the testing, evaluation, verification and validation or often TEVV process. So, in that you want to understand where is the training data coming from understanding that you know it might be trained and then those operating conditions or operating environment in live are going to be different, so how do you make sure that your training as similar to the operating environment? Where is that training data and the security around that coming from? And then what is those feedback loops. So, as it's getting tested develop. How are any issues risks being identified and mitigated and what's the oversight around that. So does a company have kind of a risk register and what is the governance structure around that. Some other examples could also include in terms of the training. So what training is for an operator once the product is developed? And how does that change based on the nature of what it's being used

for? You know, if it's being used for border control, you might have more time to really spend with the end users to train them if this is being used in Ukraine, that risk threshold is higher and therefore the training needs to be adapted to that situation as well.

So, as you can imagine, this is a much more detailed process than just a ESG checklist and it really is much more on the technical side, but I think it's important transition or shift, as we're moving away from ESG, is really understanding that any of these risks around responsibility are not something that is separate on the side but are embedded into the product design and therefore also the business. It shouldn't be seen as responsibility as a nice to have, this is a core strategic advantage, because also if an issue goes wrong, this also has not only major impacts in use cases, but it also could potentially tank the business if it would have a major risk in this regards. It also just provides more control, so that aspect of military end users want to be able to make sure that any product they're able to control and they can trust. So, ensuring and kind of having that stamp of responsible use adds more credibility to the product as well. And we really see that as a strategic advantage.

ST: And it's interesting that, you know, the focus on TEVV, the whole issue of those audit loops, feedback loops, ensuring that the delivery is as intended, you know, all of that obviously echoes the type of best practice frameworks that we're seeing coming out around AI implementation from the National Institutes of Standards and Technology in the States, NIST. So, all of this really sits on well-established foundations, essentially. Now, one of the areas around, I mean, you've brought up drones, and the natural extension of this discussion is to go as these drones are moving along and identifying a target. You know, the speed at which this target identification and then moving to an action is now happening far greater than us mere humans can keep up with. And so, increasingly we see humans being out of the decision loop. So how do you think about this issue of humans in versus out of the loop?

BL: Yeah, I think it's a very important topic and conversation that's happening, and I think the conversation is at least kind of from a political international law perspective, is evolving from human in or on out of the loop to more what is the human judgment and where does accountability lie, and what's the role of the human. And where in that process is a human responsible for the use of lethal force. Oftentimes it's referred to as meaningful human control. The US DoD and many of international governments avoid using that term as well. And I think the more appropriate would probably be around human judgment.

ST: That's interesting and certainly something to watch how it continues to evolve. We're going to shift our discussion to taking the different perspective and focusing on the role of the asset owner. Now the asset owner of course, encompasses, you know, pension funds, endowments, sovereign wealth funds. Now, traditionally, these groups, as they've considered investing in weaponry, or the defense sector broadly, have adopted a position of exclusion or screening out these sectors. And really, that goes back for many many years , where defense stocks were included in the family of sin stocks, so together with tobacco and gambling, and really those sin stocks were excluded to ensure that, you know, the portfolios of these asset owners were aligned to the value or the ethical position of those pools of capital. And it's interesting that the position around defense or weaponry was taken as something to exclude versus the position of peacekeeping or enabling security. I know you've

done quite a lot of work to look at where the asset owner community is sitting today and how they are considering this sector, so, it'd be great to get an update on, yeah...what what's happening now?

BL: Thank you for mentioning the paper earlier, and we're actually working on some follow up research. So, in January we had put out a paper on around exclusions lists, and I'd mentioned that if defense industry that is upholding peace, security and Western democracies shouldn't be excluded, but should be done responsibly. For instance, a bank may say that if a company has any dual use or contracts with the defense industry, they would not be able to open a bank account. As you mentioned, this is no longer just a game of the primes in the nature of, the changing nature of warfare, a lot of the solutions are coming from innovative startups. So, if they are unable to open a bank account, unable to get a loan, it slows down their operations. Similarly, if a pension fund has these exclusion lists, they are often then trickled down to the venture capital industry, and they're not able to invest in companies that could potentially be considered a weapon or have contracts in the defense industry. I will say in the past year, probably also due to the political will and political pressure, to invest more in defense, a lot of the larger institutions, pension funds and banks are starting to change their policies to allow for more flexibility of investments into the defense industry. However, I think the political will right now is much higher to where the current financial industry stands. And so, if we're really trying to meet our defense spending ambitions, we need to find a way to bring the financial industry along, and it's just not moving at the same pace as the political will is.

ST: Yeah, so, your findings really do mirror what we found when we were doing our paper that is available also on our website called "Dual-use technology: Rewriting the rules of engagement", and as you said, there is a wide variety of exclusions running. Some specify weapons, some specify the defense sector, more and more are specifying an exclusion around controversial weapons, which tend to be biological, nuclear and chemical. The challenge even with citing, you know, controversial weapons, is that there is no one neat list specifying, you know, what is a controversial weapon. There's a mosaic of regulations around this space, so even with something that potentially sounds like a neat solution of exclusion of controversial weapons, it's not actually that easy to execute. And obviously, if you can't clearly define something, it potentially means we can't actually execute on it. And then the asset owner could be, you know, in vi olation of its own policies...

BL: That's a great point, because we found similarly that nuclear is often grouped as nuclear weapons and nuclear energy. if there's policies around nuclear as a blanket that potentially hinders the opportunity to be advancing more European security and sovereignty from an energy perspective.

ST: Yeah. And I think the other thing that we see as concerning is that groups continue to be focused on this exclusion side, yet at the same time, as you rightly say, they can be very heavily deploying across the technology space and thereby getting quite a substantive exposure across the defense space. So, for example, most asset owners have an exposure to Microsoft, in the private market

space Starlink is quite a well held position. So, you know, and as we've spoken about, both are two critical platforms for running the entire Ukraine war. And so, what should the asset owner be doing? You know, should there not be an almost parallel, almost more positive focus to drive responsible use by engaging with their investment managers, with engaging with the underlying portfolio companies or assets to drive this focus, in line with the types of topics that you've discussed already around governance, around development processes to embedding these responsible practices in companies, particularly from the birth through to the growth of these businesses. But I would say that that type of thinking, you know, around sort of the positive engagement on these topics is still relatively nascent and people are still attaching quite a lot around the exclusion criteria, even though, as we've discussed, this is potentially quite a flawed, flawed approach.

BL: I would agree with you that it's still much more on the exclude rather than engage and ensure that it's done responsibly. I think even if you look at a company that would be manufacturing, whether that is composites or building autonomous vehicles, we still need to make sure that those are upholding and taking into consideration energy transition, climate risks.

Any of these companies should be upheld to the highest environmental standards, their water usage, governance for risk management and then additionally responsible use, especially when there is AI and autonomy involved. I think from a venture perspective, it's even more so important than typically in venture it's been "move fast and break things". And I think that absolutely does not work for the defense industry, because the risk is just too high. How do we help these companies scale and grow to address the need from a defense security resilience perspective, but it is even more important that this is engaging positive to make sure that there is the right governance, risk management and mitigations for responsible use at the same time.

ST: I think that's a really good point to end on and some really important sort of topics that I think the asset owner community needs to really grapple with and get comfortable with, because, as you say, you know, the risks of getting this wrong are really scary, in fact. And the opportunity to get this right hopefully means far more, you know, embedded responsible behaviors and ultimately security. So, I wanted to thank you really for your time and encourage everyone to keep an eye on the NATO Innovation Fund website for their upcoming papers. Thank you very much for your time, Brooke.

BL: Thank you so much, Suzanne.

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AM: That wraps up today's episode of RPM. Thanks to Suzanne and Brooke for the insightful discussion, and to our audience for tuning in. For more on this topic, visit StepStoneGroup.com to download our Responsible AI whitepaper and explore our full thought leadership library. You can also check out the NATO Innovation Fund's recent paper called "Responsible Investing in Defense, Security and Resilience". Be sure to subscribe to RPM wherever you get your podcasts. Thanks again for listening.