Building the Arsenal of Innovation
Thursday, July 17, 2025 - 4:50 PM ET/2:50 PM MT
https://www.youtube.com/watch?v=YUBjGJUViC8&list=PL7fuyfNu8jfP8TWSJzPCsyScNGwbW6xbQ&index=25

Speakers

- Igor Jablokov, Chairman and Founder, Pryon
- John Serafini, CEO, HawkEye 360
- **Moderator:** Shashank Joshi, The Economist

Joshi
Okay, where we're very lucky to have two people here who are building things that are being used in today's defense and intelligence agencies right now. so we'd like to get their insights straight up on what's going well, what's going less well, what needs to change. and before we dive into that conversation, could i just please invite each of them in turn, starting with you, perhaps, John, just to give us 90 seconds on what your companies do they do very different things they both do very interesting things give us a quick 92nd summary of what we do, and that'll help us put this all in context.

Serafini
I'd be delighted to my name is John Serafini. I'm the CEO of Hawkeye 360 I'm also a venture capitalist with with shield capital, where I focus on national security space investments. So if I can offer any value to this collective which, which is debatable, it's in the national security space ecosystem. And had to build commercial companies to provide value to American national security and our allies, we founded a company named Hawkeye 360 about a decade ago. What Hawkeye does is we we operate a constellation of 40 satellites that fly in low Earth orbit. They're equipped with software defined radios and antenna configurations which allow us to Geo, locate, process and analyze radio frequency spectrums, otherwise referred to as signals intelligence, which is done with our own proprietary constellation. We take that data, we analyze it, we process it, we geolocate it, we convert it into actionable tactical intelligence, surveillance reconnaissance capabilities for our for our customers. Our customers are predominantly Defense Intelligence and to some degree, humanitarian organizations that want to better understand the signals environment that they're operating in, whether that's in the maritime domain, the border domain, or even in space. So as you'd imagine, Defense Intelligence, security, both US government as a principal buyer and our allies. And along the way, I've had the opportunity to invest in a number of really thoughtful space based companies that are doing some amazing things, principally albedo, which is operating a constellation of satellites in very low Earth orbit. Think 200 kilometers apex, which builds satellite busses, starfish, which actually projects out into geo to do on orbit, servicing of other people's satellites, a variety of different capabilities. So I'm pleased to be here with you today, and I look forward to discussing these matters with you.

Joshi
Thank you very much. Igor?

Jablokov
Yeah, so I used to lead an early AI team at IBM, and when they were not being as aggressive as I wanted them to be, probably a quarter century ago, I departed and stood up our last company. Within a year of standing it up, I prototyped the first version of Siri before the iPhone existed with the Apple folks, and then five years later, we became Amazon's first AI related acquisition at birth, what many of you know as Alexa. So Alexa is my older sister thing, and the code name for that was Priam. Now, eight years ago, we stood up this company because we knew that this style of technology would come to more serious places. So we were done haunting all of you in your kitchens and bedrooms, and thought to move it towards more serious pursuits. And about a year into it, I get this call out of the blue and and the fellow says, Hey, I'm excited about what you're working on. I'm going to become your largest investor and help you run the company, join your board, and let's let's go. And I'm like, Who the heck are you? So I did a Google search, and the only thing that came up was this weirdly sounding book. And I'm like, How do you know anything about this? Ai topic? It's like, well, I work together with Peter Thiel, and I'm familiar with Palantir. I'm like, All right, and that was JD Vance and and off we went. So we're a dual use entity. So think about these gpts before, you know, chat GPT existed, but more focused on critical infrastructure, critical workflows and the like as well. Every single one of your organizations requires something new called a knowledge cloud. It essentially becomes your own personal Library of Congress, your own system or record of everything that you need to do in order to make the best possible decisions from structured, semi structured, unstructured knowledge. And that's where we come in.

Joshi
Thank you very much for the incredibly concise summaries. Just a quick word before we sort of get into the substance. It strikes me that both your cases, your your where you where you're situated, in relation to defense, John, in your case, the sorts of things your satellites do, these existed for a long time, but if we were this conversation 20 years ago, they would have been incredibly classified. They wouldn't have existed in the commercial, private world. They would have been known to a small group of people in the intelligence community. And so the difference in your case is you're doing these things outside in a commercial sense, not just quarantined away in a tiny bit of the classified world. And equally, your case, some of the AI work that you're doing perhaps has existed in government but presumably the stuff you're able to do is more advanced than a lot of what can take place inside the US government, given the nature of your firm is that a fair summary?

Serafini
Yes and no. We need to get to building area 51 style technology we need, essentially Manhattan Project of the style of things. That's what AI used to be in the past as well. There's too much euphoria around AI, where people are publishing papers and filing patents, and it's attracting a lot of capital, and we've given up our strategic advantage in the early lead that we had. You're right, a lot of this stuff was actually anchored in the intel community. I mean, the IC had speech

recognition in the 70s and things of that sort. And so we kind of need to go back to that in terms of, you know, creating an indelible platform that doesn't have the influences that you see typical in the BSC world as well. So, no, I think we need to find that advantage, again.

Jablokov
I can, I can continue, which is that we're a natural extension of a commercialization trend that's been going on for, ultimately, decades. It started in the communications realm, in space companies like iridium and Intel set, which privatized what was previously a government function for communication space. And then you saw the company now Max R, then Digital Globe, at the time build commercial electro optical imagery collection capability, followed quickly by Skybox, then became part of Google planet, black sky, et cetera. And of course, you've seen the commercialization and privatization of a launch function with the SpaceX Firefly and Rocket Lab and in others that have democratized access to space without each of those three distinct commercialization trends happening. There is no Leo commercialization period like those three things had to happen. So we're a natural extension if you can take a picture commercially and sell that commercially, then why can't you analyze spectrum and sell a commercial signals intelligence product? So that was the general thesis around which we started the company about a decade ago.

Joshi
So you've both sold and dealt with the Department of Defense in other parts of the US government, a great deal. Just reflect on that for a minute and tell me what's improved and is going better than when you started, and what continues to frustrate you and get in your way. Perhaps, John, I can start with you?

Serafini
So institutionally, the foundation for better integration of commercial capabilities is there, and we owe that to previous administrations. Trump won, Biden, etc, the mantra of, let's buy what we can and build only what we must. That philosophy has existed for a long period of time. I do believe in the past six months or so of the Trump administration, some really good things have occurred. Notably, there's been four meaningful executive orders and number of different directives out of Secretary hex office that have been very helpful with developing regulatory approaches and reducing regulatory guardrails that are unnecessary, as well as putting more emphasis into commercially oriented contract vehicles that can increase the scale and the speed at which commercial capabilities can be can be utilized. What I did, envisioned or experienced earlier in my career, when we started the company, was an interesting commercial but it was really commercial. Was about research, development, testing and evaluation, and they effectively got a whole generation of startup companies drunk on &D dollars, and you just moved from the SBIR phase two to an In-Q-Tel work program to some other small contract to prove something to TRL-5 they would die because the government, institutionally, didn't, quote, want to pick its winners and move to meaningful O&M programs of record.
Joshi

John used a lot of acronyms there, so just to pin you down quickly, what you're saying is that a lot of money on experimental research, early phase pilots and projects without ever scaling up to large scale procurement. Is that a fair, somewhat, simplification?

Serafini
Research in testing for the purposes of research and testing, almost commercialization, pantomime or theater. And what we've seen increasingly so in the back half of the Biden administration, and certainly in this current Trump administration, is a willingness to say that works, that supports the war fighter. Let's put some gasoline behind that and really scale it. Get a program of record going and deliver that to the troops and what, of course, for many of the defense tech brethren, what, what drove that was, was the proving grounds of Ukraine. If your capabilities were being used in operational theater, in delivering value to the war fighter and in a no BS, type of environment where the margin of error was negligible, then that technology could be deployed elsewhere and holistically and universally throughout the DoD.

Joshi
Igor, do you recognize that picture? Do you share some of those frustrations? We'll have different ones?

Jablokov
I have ice water inside of me. I don't know. I don't I'm never frustrated by anything. You don't expect Captain Sully to panic. Look, you have a new class of leaders coming in, what would be an example, Army secretary, Dan Driscoll, right? That come from the entrepreneurial world as well. So we can speak shorthand about a lot of these things as well, and remember, entrepreneurs by their very nature, we're naive, right? There's lots of people that that tell us that our light bulbs don't work, right? For years upon years upon years, we hear our light bulbs don't work, and then all of a sudden, the light bulb works. And if you look about what's what's been happening with acquisitions, Fortune has turned away from what the big, big tech, big primes, big consultancies, big law firms and things of, things of that sort. Now what do they represent? Supermarkets, any one of those can actually solve the majority of the problems that you have, right? That's what a supermarket can do. It can solve the majority of the things that you need to acquire. So what do we represent as smaller, nimbler organizations that are thinly funded by comparison? Well, we're your Jewish jellies, or your Italian bakeries, where your French pastry shops. If you need a little pop and flourish, you need extra advantage on accuracy, scale, security and speed. That's why you seek us out for that thing that fills in the blanks or gives you an advantage that most people you know, you know, won't be able to get from that place where you're sourcing most of these things. As a nation state, we need to have essentially that genetic diversity of places. And look, the other thing that you should have is a typical aircraft has what backup of backup of backup of backup of subsystems. So every one of those ecosystems I'm not competing with with big tech, I'm not competing with the big primes or anything of that sort. Buy from them, buy from them, buy from us. Have layer after layer after layer. Because I promise you, when things turn hot, guess what? In all domains, every single one of those things are going to get popped. But if we have enough of those layers, you know, we're going to be able to defend ourselves.

Joshi
I want to just reflect on the AI conversation we had earlier on the stage with many, including Open AI, anthropic, and the point that I heard I took away was this idea of governments don't often know exactly what to do with the new tools available for them in the private sector. In the case of Frontier AI labs, it's a particularly extreme example, because these are such sort of wide ranging tools that can do so many different things that we don't fully understand. But in your experience, in thinking about how government absorbs the technologies that you do both build and offer, are you finding that they are using them in interesting and sensible and perhaps transformative ways, rather than just to do more of what they already did. John, starting with you.

Serafini
It's difficult for me to discuss specific engagements of our technology given the nature of our work, but I have been ultimately very impressed with the signals intelligence capabilities of the vast majority of our of our international customers, the US government, is a bit different, because the level of sophistication for engaging with and utilizing signals is very, very high our customer, our customers in our nation as a whole, have had access to capabilities in the classified domain for decades that have enabled them to produce very exquisite capabilities. I don't need to replicate that in my delivery. But for other countries, particularly those who have never had access to organic signals intelligence collection before, there is a scaling up period of time which requires on site support and engagement to best exploit the value of the data.

Joshi
Igor?

Jablokov
All this stuff came from them. What are we making it sound like, government doesn't understand AI? They birthed it all in the first place. Just because you don't know where it was birthed, doesn't mean it wasn't birthed there, right? So, you know, in some ways, I don't take an antagonistic view, view of it as well. They shaped this stuff. Just the problem is it got away from us. In some ways. I think one of the things that they mentioned in the last panel is, well, you know, in the second and third world, they trust AI more, and in the first world, we don't trust it as much as well. So I'm also on the board of With Honor, which is seeking to take bipartisan vets and move them into public office, and the place where there was convergence between Republican and Democratic viewpoints is a fear of AI. Now, why is everybody afraid of AI in the first world versus the second and third world? Well, second and third world is being operated by authoritarian regimes. Here you have the most anti social people on planet earth that are ones developing these platforms, the same folks that operate our social media platforms where we're worried about our elections or we're worried about child welfare, about these platforms being used to attack senior citizens and things of that sort, that's why everybody's biting their fingernails. That's where it's coming from. But don't worry, they're claiming that they're going to solve AGI. These big bad labs are going to build a lot of AI data centers, and they're going to get to AGI before anybody else, and derive some sort of economic advantage from it. That's not

where AGI is going to come from. I'll clue you in. Guess what? You understood everything I just said. But you know what you used to be a single cell organism. It's going to come out of somebody's basement. It's going to come out of a garage. You'll never see it coming. Don't think it's coming from there.

Joshi
That's a reassuring thought, Igor, thank you. I want to just, I'll open up the floor for some questions in just a minute before I do that. You pointed out some clusters of people like Dan Driscoll, the Army Secretary, where there's innovation taking place. And you've also, I think, reminded us government aren't idiots when it comes to absorbing and using this technology as well, which is helpful. Let's say you've got Secretary Hegseth or Deputy Secretary Feinberg in front of you, and very simply, you can offer them some advice on structural, regulatory, procedural policy changes, very simply, that would significantly scale up their ability to use commercial innovation. Very simply, just each of you briefly, John, starting with you, what would you say?

Serafini
Well, it's not necessarily with Secretary Hegseth but it's his ability to influence Congress which is important. First of all, we cross the rubicon with these, with the full year CR, and that was a horrible outcome for the defense industry as a horrible outcome for the Department of Defense. We have to pass a budget on time. The CR mentality needs to go away, and that's on Congress. That's thing one thing two is the foreign military sales and the foreign military funding, which is an exceptional avenue for American taxpayer and American ingenuity to be deployed to the betterment of our allies. That system needs to be fixed. It needs to be streamlined, and it's on people's radar. But that needs to occur. The third is, while the macro tailwind behind the defense tech industry right now are strong, access to capital is a fleeting thing, and being able to increase the universe of investors in our great American startup companies is a long term endeavor and an imperative. So FIRRMA, which established the terms around CFIUS, really needs to be re-looked to move away from all parties need to be exempted or need to be approved. For example, the Brits for a British entity to invest in my company or another defense tech company, in certain cases requires a CFIUS review. Well, that's ridiculous. It should be more of a white list than a blacklist if it's a Libya sovereign wealth fund. Obviously, that's not in the best interest of the Americans. That would be excluded if it's an Israeli investor, and we provide billions of dollars of aid to Israel, why wouldn't we want Israelis investing in our startup companies to the extent that we're still able to control the right governance of our Andes, then we should be able to do so. So those are my three concrete…

Joshi
Okay, if anyone here is in the Libyan sovereign wealth fund, please be aware not for now, please. Igor?

Jablokov
Okay, the first thing that I'll say is, I'm not a tech company. I'm not a tech company. My job is the same as yours, mission alignment, and that's a preservation of life in all of its forms: animal,

human and plant life and that's, that's the first go around. The second question thing I'll pose is the following, “What's today's special soup in the mess hall?” They're like, What are you talking about? You're here to pitch a Skynet. What's today's special suit in the cafeteria? I don't know the answer to that. I'm like, great. Let's start there. Otherwise, if you go to Skynet, it's going to take five years to draw the requirements, and you're going to have one Ivy League or who was captain of the debate team, or mock trial team that won nationals, writing a position paper, debating with another one who's also an ace of aces, taking a counterpoint. And it's going to take forever, and by the time we deliver it, it's already going to be obsolete. Instead, we will create the AI to answer the question, what's today's special soup in the cafeteria? Why am I doing that? For the same reason, I help make a lot of the things that sits on your iPhones and sits inside of your kitchens. I'm going to start collecting data, you know, from that, and inevitably, you're going to have a young leader, a senior enlisted, an intern, that breathes something into it that's going to change the course of history. This is like Karate Kid, wax on, wax off. I'm, by the way, working in that unclassified thing, I'm going to be more likely to be able to stay ahead of the curve in terms of defining the state of the art. And then eventually, when you're comfortable and you trust it, guess what you're going to do? Move me up. Aisle two, aisle four, five, six. And then, above that as well.

Joshi
We look forward to soup bot. I think I can squeeze in a couple of quick questions, if we're very brief. Would anyone like to ask anything? Oh, yep, at the back over there, please.

Audience Member 1
On that issue of AGI, you said it's going to be someone in his garage, right? But we all hear that it costs billions and billions. So why? Why? You know how, how am I going to do that out of my garage without those billions.

Joshi
And before you answer, anyone else would like to group one more together, if not? Oh, yep, just down front, please. And you can answer these together. Just on the way. Just over there.

Audience Member 2
For Hawkeye 360, so you guys do a lot of radio frequency emissions tracking. How are you thinking about in terms of for military escalation risks, in terms of what happens when commercial sensing starts interfering with, say, military deception operations or denial campaigns?

Joshi
Igor, why don’t you start?

Jablokov
Yeah, very, very quickly, the answer to that question is, you're presuming the only place you can grow an animal is a rain forest where there's plenty of food and water, and yet, somehow, evolution has also created animal and plant life in a desert where there's not a lot of water, not a

lot of compute, not a lot of money, not a lot of people. And yet things are still born there and adapt to those environments, counter intuitively, those style systems feature and get to greater scale because they're more compute efficient as well. Look, it's on the west coast. It's in their favor. To tell you that you need a lot of money and a lot of personnel and things of that sort, because that plays, you know, to their rain forest. But I'm telling you a lot of animals still grow in other places.

Serafini
Thank you for your question. I guess the answer is that our customers have a wide range of capabilities, and so we deliver a range of functionality to them. For those who are very sophisticated, they want to do their own processing, we'll deliver them the raw data itself and allow them to do so for those who are more dependent upon our own processing capabilities and artificial intelligence analysis, then we can do that for them and deliver it as a service. So in the case of your question, for example, GPS interference is a really big problem. GPS, GNSS, l1 l2 and l5 interference is a problem throughout the Middle East, and in particular in Eastern Europe, as you would imagine, we can deliver raw IQ that shows, Hey, your dollar is to you customer. You deal with it, you process it, you analyze it. Or I can map it myself and try to show in the eventual example of civil aircraft, where the corridors around which you can operate, where your instrumentation is not going to be interfered with. So hopefully it gives you a sense of how we deal with some of that answer.

Joshi
Since we have two minutes left, I just want to continue your thought equal that you left off on. You know, things can grow in the desert, it's not just a question of vast capital expenditure. If you're revising smaller sort of entrepreneurs thinking about building things for DOD, for national security missions with those limited resources outside the big labs, what advice would you give them?

Jablokov
Well, you better care about what you're doing, because you're going to hear a lot of those and it's going to take you forever. It has to be something that's inside out and it's accidental. Look, you know, when I gave you my origin story, nobody really knew, you know, JD, was a curveball, you know, out of, out of nowhere as well. DeepSeek, that wasn't born in Huawei or Baidu, right, any of the places that we expected it, right? Did Google create ChatGPT? No, these things are going to come out of, out of curve balls as well. And so that's the thing that I kind of reinforced a lot of these. You know, entrepreneurs just do your thing, and if you last long enough, you'll be relevant.

Joshi
John, it's a bit different. It's a bit different for you in that you have to build quite expensive satellites, and it is harder for you to sell to the commercial world. You're a bit more dependent on that military sort of sponsorship. So is that a bit tricky for the similar firms?

Serafini

I'll just share with you the recipe that I've given my company, and perhaps it's helpful to other defense technologies that are emerging. Thing one is “be trusted to do what you say that you are going to do.” There is no fake it till you make it. Mentality that's very Silicon Valley oriented in the defense industry, given the stakes associated with delivering that kind of functionality. Thing one. Thing two is “be humble.” Recognize that the sun does not revolve around your company. The sun revolves around the war fighter and the intelligence analyst and the decision maker, and it's your responsibility to make sure that your capabilities are interoperable with the plethora of other and the complexity of other systems that are going to be integrated with it. And then thing three is you have to be sustainable. To me, that means you have to operate as a profitable end. And you can't be a ward of the state. You can't exist solely to sell it to the Department of Defense and still expect to provide the venture return to your investors. So you need to have the ability to access commercial markets and also sell internationally.

Jablokov
I want to say something real quick. We're not coin operated. Don't think entrepreneurs are coin operated. You know what drives us every day? Our job is to do what? Solve the triangle of sadness: Ukraine, Israel, Taiwan are the front lines of democracy. We're just the ones creating the tools for the folks that eventually solve that so everything just stabilizes.

Joshi
Thank you both for your thoughts. Please everyone, thank our panelists.