



Episode 235 – What Forces Will Redefine Sovereignty in Space?

Speaker: Alessio Bonucci, Associate Director at Boston Consulting Group – 24 minutes

John Gilroy:

Welcome to Constellations, the podcast from Kratos. My name is John Gilroy, and I'll be your moderator. Today, we're discussing sovereign space, what's driving nations toward building and acquiring national space assets, which factors could hinder efforts towards sovereignty, and how nations are balancing sovereignty with strategic collaboration in space. Joining us is Alessio Bonucci, Associate Director for the Aerospace and Defense Practice of Boston Consulting Group. He's here to unpack the pressures reshaping space sovereignty from industrial bottlenecks to shifting alliances and how they will determine how nations navigate sovereignty and space over the coming years.

Alessio, big topic. You ready to jump in? Are you ready?

Alessio Bonucci:

I'm ready, John. Good morning, everyone. A pleasure to be here.

John Gilroy:

Good, good, good. So, Alessio, what does sovereignty in space actually hinge on right now in ways you think most people overlook?

Alessio Bonucci:

I think it's really the complexity of sovereignty across the value chain which encompasses all the different steps, especially in space, of course, from launch to manufacturing to managing the satellites to servicing to actually customers. But even more, for each of these elements, then you have nuances in terms of, how do you get to the level of sovereignty? And I'm thinking about, for example, critical materials. I'm thinking about sovereignty of where you launch from. If you take the example of Europe in this moment, majority of launches are performed out of French Guiana in Kourou which has performed extremely well in the last few years, but at the same time, it's on the other side of the Atlantic Ocean. So not exactly the closest place that you would consider fully sovereign in case of an installation or else.

John Gilroy:

Well, recording this, and I'm in Washington, DC. You're over in Italy there. And so when you look at Europe's space ambitions today, what feels like the real bottleneck shaping what's possible?

Alessio Bonucci:

Well, that's definitely a combination of budget, which in the past few years there used to be a constraint, especially in Europe. Nowadays, not very much so. And now what's really driving capabilities at the end of the day? How much can you deliver? How fast and how innovative, I would also say. So, how can you really be competitive from a 360 perspective which is really what SpaceX has brought to



the industry. It's the new set of, again, skills in terms of vertical integration. Again, also within the single value chain, very much of what they do in terms of launch capabilities. They do not outsource even simple components as much as they can.

Doing this in an industrial landscape that at least in Europe was not very much aligned in the same way, presents some challenges in terms of adaptation from an industrial perspective.

John Gilroy:

In my introduction, I talked about balance. I think this is going to be the theme of this whole interview here. So, where do you see the most tension emerging between Europe's desire for greater control in space and its reliance on global industrial partners? There's a push and pull there, isn't it?

Alessio Bonucci:

Absolutely. And this is not only true for space industry, but for the overall defense industry at the moment and potentially even beyond. If we think about global supply chains now being struck by the crisis in Iran and the lack of basically oil products out here in Europe, we don't even know if we're going to be able to fly out in the upcoming summer. And this is even more true if you think about an industry that historically has been intrinsically global with supply chains really stretching across oceans in terms of critical components, as I mentioned earlier, but even specific solutions. This presents some challenges at the end of the day. How do you balance this, no? And I think on one end, what we're seeing is a significant push towards higher level of independency because the current geopolitical tensions are bringing also some opportunities rather than some complications, but also keeping, I would say, a balanced way between how we mean sovereignty at European level and a national level.

This is another critical element that is sometimes overlooked. Many countries are pushing in terms of new capabilities in terms of constellations. How we're going to be able to integrate this in a federated way, if you want, is what's going to really make the difference between successful and competitive solutions versus just replication over replication.

John Gilroy:

We've used the word sovereign here a whole lot. When I think of the word sovereign, I think some kind of control or something. So, what part of the space ecosystem do you see becoming the biggest test of whether a nation actually has control over its capabilities?

Alessio Bonucci:

I would have to say, in the short term, it's definitely going to be launch capabilities. We're in a moment where, again, SpaceX performs 50% of global launches and puts in orbit 80% of global mess. And if we think that Starship is somehow going to be successful, this is only going to get even more skewed.

So, if we really want to be there in terms of capabilities, launch is the next key thing. Because if you think about manufacturing or operations, at the end of the day, operations many companies can do, even if they definitely cannot even manufacture a satellite. They typically buy from established players, Boeing, Lockheed, ISISPACE, [inaudible 00:05:11], you name it. The next level is of course manufacturing satellites themselves. This can have some shades in terms of capabilities, in terms of size, in terms of, of course, again, competitiveness. But where I really see a potential bottleneck coming our way is really launch capabilities. And this, again, encompasses the entire ecosystem. It's not only launchers, which



are traditionally the most complicated element of the value chain. Usually, people say, "This is not rocket science." That is the big rocket science.

John Gilroy:

We're living in a very, very competitive world. I mean, everyone in the world seems to be interested in the space sector. So, how is Europe's position in the space sector evolving as more countries pursue their own sovereign infrastructure?

Alessio Bonucci:

Well, it's certain growing, and I would say it's definitely interesting to look from an external perspective because you see new players, new approaches, new countries that traditionally were basically considering space as [inaudible 00:06:04]. And so really a total element to be put into balance sheet at some point all of a sudden realize the sovereignty, not only from a space perspective, but across a number of commercial and governmental perspective. I think about communications. I think about Earth observation.

We'll also rely on space capabilities and the enablement the space industry has been able to unravel for many other industries. It's going to get bigger and bigger. Just to give you example, deliver just the global. You name it. All of these players are only able to be there because we can use GPS or Galileo or whatever constellation you think that is enabled by space capabilities. They are free for everyone, basically. And now we give it for granted, but that was not the case 50 years ago because they were really not existing.

John Gilroy:

Talked about big players and small players here. So, what patterns do you see in how middle-power countries are trying to build their own space sovereignty without the scale of these big players, larger players?

Alessio Bonucci:

That's a very interesting point. And I would split this into between countries that are still within, I would say, a European or a Western umbrella where, of course, they need to play, let's say, binatural rules at larger, which means anyhow they are within the European Space Agency and, of course, with a significant relationship with the US in terms of either traditional launch capabilities, reliance against certain manufacturing, and the rest.

These countries at the end of the day are trying to sustain national champions, although small, although emerging, but to, again, grow as much as possible their level of independence, also to get sustainment in terms of GDP growth and et cetera, and also it has some concrete socioeconomic benefit that I can immediately claim, and it also helps from a political perspective.

If you then vice versa look at countries that are more, I would say, in between, if you think, for example, Middle East, Southeast Asia, or else, now they're looking at this in a much more pragmatic and concrete way. It's not necessarily US or Europe reliance, but it's trade-offs between, what can I get from the US or Europe, or what can I get from Russia, or what can I get from China? And what drives me in terms of overall nation to the best possible outcome? India is part of the Artemis Accord at the same time they're pursuing their own independent capabilities in space across the board. I would say that's also an



interesting reflections for many European countries now that there is potentially a growing, I will not call it decoupling, but less strong entanglement between the European and the American economies and capabilities to look at how they can be more of a equal partner to the US rather than a junior partner because that really means that at the end of the day, if from one day to the other, you see decision that are not very much aligned to what you were expecting, you don't have an umbrella. You really do not know how to solve this issue.

Let's take example of removing the 5,000 soldiers from Germany that President Trump has just announced. Whether that is going to happen or not, I think it does not matter. It matters that you do not have the same comfort from the overall defense perspective that Europe has experienced over the last 50 years or more, and therefore we need to find a way to take matters into our own hands what proper level of partnership. And as such, I think it can also be much more beneficial to the US themselves that are then having the need to supply and supply and supply somebody that is not really capable of standing on its own.

I think Europe is ready to do so. It has the capabilities from an industrial perspective. It has to recognize that doing this requires some extra efforts, again, in terms of competitors, speed, innovation. Balancing these two ecosystems will be quite interesting to see.

John Gilroy:

Well, there's the word for this interview. Balancing. This is a theme here. So, where do you see the tension between commercial growth and national sovereignty playing out most visibly in the next few years? Another balance, huh?

Alessio Bonucci:

Indeed. And I think, though, that at least in this case, what we're seeing is that the sovereignty push is getting stronger and stronger. Whether it's for SATCOM or for observation opportunities, what's happening at the end of the day is that all major players are posing or pushing aside the commercial opportunities because the governmental one, especially related to defense, are much more interesting from an overall setup perspective. They're typically larger-size checks. They're typically longer-term contracts, much more bundled opportunities. Rather than going after 25 different customers, you just need to go after one big MOD, if you want to be very simplistic.

And this, again, provides at the end of the day opportunities for players that are still wanting to balance, if you want, and to push after the commercial guys because those needs are still going to be there. They have not disappeared in terms of, for example, agricultural companies, logistics, transportation, inflight connectivity. You name it at the end of the day. It's really endless. And those can be actually served as customers as of now. And if you do not do it in the next two, three years, five years down the line, the big guys, that at the end of the day got the large government contracts and probably manage leveraging those assets to also serve those other customers, will have it all.

John Gilroy:

You talked about geopolitics earlier. So, how are current geopolitical frictions changing the conversations you hear about long-term control of infrastructure in orbit?

Alessio Bonucci:



Well, that's definitely another interesting point in how we're going to see that challenging to envision at this stage, given the high level of complexity that basically brings to that as well as the uncertainties of how do we treat those. At the end of the day, think about it. At the moment, there is no concrete agreement of how those assets needs to be managed because, so far, space has been mostly, and I would say hopefully it's going to be the case, but not necessarily, peaceful. That peaceful cooperation that was really embodied by the International Space Station between US on one end and, of course, the Soviet Union and Russia on the other was the perfect representation of this space-in-space cooperation. Let's get all together.

At the same time, this basically brought a lack of jurisdiction and clarity on how do you treat some elements when this might not necessarily be the case. Let's be very concrete. How do you protect commercial satellites? See, if those commercial satellites are also used to provide solutions, however share in whatever shape to other governments, whose responsibility is that? Is it for the commercial company? Who should they hire to? They're not going to be able to hire an MOD. Should it be their customer? Might not necessarily be the same country that hosts those satellites and that they belong to because the company might not necessarily be from that country.

This creates some complexity on how we're going to be able to actually manage it. In, again, a situation where capabilities really drive the realm of opportunities, are you going to be able to have satellites properly secure with the right level of resiliency, being able to monitor what others are doing nearby your satellites? All of these questions will need to be addressed in the next five to 10 years. Otherwise, we really risk investing billions in assets, and potentially even more if we think about orbital data centers and further, without a clear risk management perspective. If we think, for example, from a private equity venture capital perspective, this might get extremely tricky. How do you manage insurance on those assets?

John Gilroy:

That's a tough one. Well, I'm in Washington, DC, so I got to bring in a federal government perspective here. So, what kinds of decisions do you think companies will need to make differently if NATO's space posture remains undefined for a while?

Alessio Bonucci:

I would definitely say it's going to be about own investment, and some companies, both in the US and Europe, in the last few years have been heavily supported given their role within the overall national aerospace and defense ecosystem and to be the provider of choice for the specific governments. By doing so, they of course enable the right level of capabilities for those countries but, at the same time, never took the entrepreneurial mindset, if you want, of investing on its own capital before actually seeing a contract. And this is, again, what SpaceX changed into the equation. Investing private capital into the development of Starlink was somehow a game changer for the industry and opened up new opportunities and new capabilities and, again, new services that were not there before, at least not at a proper level of competitiveness from a pricing perspective, for example, because nowadays I can basically buy a Starlink contract solution at home that has performance and costs that are equivalent to fiber.

And in some areas, this is much better. 10 years ago, it would've been impossible to do so. Now, it is, and it's a real competitor for new domains. So, it's really bringing new value pools to the industry. The



companies, rather, that will be able to bet on themselves, on constellations, on capabilities, on infrastructure and assets will be the one in a position to really determine how the market evolves because that will unlock the customers at the end of the day and the value pools.

John Gilroy:

I asked you a question about NATO. Now, I got a question about non-NATO, if that's an interesting term or not. As more non-NATO partners grow their space ambitions, what dynamics stand out to you and how they define sovereignty differently from Europe or even the United States?

Alessio Bonucci:

We slightly touched this even earlier. I will double down heavily on that. I think the first key element is, as we said, not necessarily a binary position between Western world and non-Western world. No, it's not good and bad, necessarily. It's trade-offs between what the different companies and the different countries are willing to put on the table, for example, on a G2G agreement because that's really what we are talking about. It's not something that you buy or pushes independently without a strong support from the government on both sides.

The second element is that, right now, especially some of these new countries are bringing lots of capital to the table. And this is quite interesting because, again, you have the opportunity to support other players that might have those capabilities but might not be on a strong capital position and therefore to make the investment that we're talking about, for example, on infrastructure and constellation. Let's take Equatys partnership between Space42 and Viasat. I think that's a key example of that. Can really build on those capabilities to unlock some next-generation solutions.

Again, now budget is not an issue anymore if we think about Europe. Maybe in the US, it has never been, at least on a relatively scale. But still, to do this with own capital and not necessarily on public contracts that still require long-term agreements and a slow-moving decision process can really be a differentiator for the industry.

John Gilroy:

So, which technologies or operational practices do you see becoming the quiet determinants of who really has strategic freedom in space?

Alessio Bonucci:

Well, we talked about low rockets. Those are not necessarily quiet.

But I would say, again, if you look into the subtle dimensions of the value chain, for example, terminals, terminals are a key element. Even SpaceX struggled for a long time in terms of unit of economics because they were too expensive to manufacture and basically for anybody to afford on a typical contract. Then we scale to solve the problem. But to really look at these specific elements, whether it's the ground stations, again, I think now we have the facts to support that. France block the sale of the ground stations to EQT for a very simple reason, that they consider that a strategic asset. And EQT is a private equity fund. European want potentially another sovereign nation still [inaudible 00:18:38] upfront. They prefer to keep it in-house. As simple as that. And I think that's really the representation of even a specific step of the value chain that typically is very much overlooked. And traditionally maybe it was not as exciting as a launch or so else was considered critical. As simple as that.



John Gilroy:

So, what stands out to you in how Europe is approaching resilience, not the headline moves, but the subtler ones that maybe signal direction?

Alessio Bonucci:

I would say at least in a couple of dimensions. The first one is supporting very much national demand or at least European-made solutions. I think we've seen this with Starlink. There have been a lot of rumors. So, for example, Italy and Germany buying long-term agreements with Starlink. Now, Germany has decided that they will build their own SATCOM constellation for the Bundeswehr with a significant chunk of the 35 billion in euros that have been allocated for this upcoming five years. It was an unprecedented amount of money if we compare it to the overall typical war part that we talk about in Europe. Now, we have ESA that typically has three years ministerial budgets of 22, 25 billion euros. Now, we have 35 just for a single country and just for space defense for five years also. It's really an order of margin to the game changer.

And the second key element is, again, considering how to balance national initiatives with European-wide ones. And that's another key element that we need to sort it out in Europe to make sure that we are successful, we avoid redundancy, because at the end of the day, we cannot afford them to we have more money. Even all combined, we're still investing in space less than what the US, for example, are doing. And on a PPP party, even less than what China, for example, is doing. So, we need to be mindful of avoiding redundancy and rather find the proper way to integrate those capabilities. If we're going to have three different SATCOM constellations, so be it. Let's do it so in a way that they talk to each other rather than fully replicate maybe coverage on areas, which can naturally happens. And for example, leave the polar area totally uncovered.

John Gilroy:

You go to conferences, they always have a speaker on supply chain. So, how are questions around supply chain exposure influencing the way industry thinks about sovereignty right now?

Alessio Bonucci:

It is certainly growing. In my view, it's still very much underappreciated, this complexity. Again, not only in space, but in the overall aerospace and defense industry as a whole. We only realize that once a crisis hits. That's a reality. When all of a sudden there is a shortage of titanium because Russia is not supplying anymore after the UK invasion or, similar, two points happen, then this is the moment when we take actions. These unfortunately going to be short-sighted. No more, no less.

And I think we need to do much better to prevent those short points and those issues. Still, as Europeans, first we need to really learn to stand on our own legs because we have the industrial capabilities to do so. We need them to deploy the assets and to actually convert them into services, into solutions, into customers. Then, we can probably go one step further and really solve the overall value chain issue. But it's going to really take time, I'll say a systemic effort, because also some of these materials are not necessarily only relevant for space but for other segments. Let's say automotive or chemicals or else. So, we need really a 360 holistic approaches.

John Gilroy:



You say it's going to take time. Well, let's peer into the future. Let's get out that crystal ball. Going to take time. So, as you look ahead, what forces do you think will have the biggest impact on reshaping what space sovereignty means for Europe over the next decade?

Alessio Bonucci:

We build on what we just said. I think, unfortunately, on one end, prices because as really discontinuity moments where all of a sudden there is this moment of realization where you need to say to do things very differently. And in my view, the second key neighbor to that is, are we going to be able to actually encompass all together on one end the traditional industrial capabilities and, on the other, the innovation vibe that the new space industry is bringing to all of this ecosystem? If we can actually mix those up in an effective way, then we can really be successful and really unlock sovereignty across the entire value chain, across different domains, and be successful on this venture. Otherwise, I think it's going to be challenging on both end legs to do on its own. The industry is traditionally, our 911 says low, but in reality, again, it has a number of processes, of internal steps, that requires a much faster approach in some occasions, again, the crisis that we just mentioned.

John Gilroy:

Good. Good. Good.

Alessio Bonucci:

The newcomers are still not that mature. They cannot do it all by themselves because the money, the capital, the capabilities are not really there. So, the combination can be a winning fee.

John Gilroy:

Alessio, I think you've given our listeners a pretty good handle on understanding space sovereignty here in 2026. I'd like to thank our guest, Alessio Bonucci, Associate Director for the Aerospace and Defense Practice at Boston Consulting. Thank you.

Alessio Bonucci:

Thank you, John.