



Kyle Whitehill, CEO of Avanti Communications ●●●

Q&A

Popular player in EMEA satcoms

Avanti Communications is a leading EMEA Ka-band high-throughput satellite capacity partner to the communications, defence, enterprise and critical public service sectors. With the power to connect over 1.7 billion people across 118 countries and a belief that everyone should have an equal opportunity to be more secure, empowered and prosperous, Avanti has made a name for itself as a popular player in EMEA satcoms. Kyle Whitehill, CEO of Avanti Communications, discusses the economic and technological state of the industry.

Laurence Russell, News & Social Editor, Satellite Evolution Group

Question: What are some recent challenges the company has dealt with?

Kyle Whitehill: The biggest challenge we had was that we were struggling to find the right customer segments for the network we'd invested 10-12 years in developing. Our original business case was based around supplying rural broadband, which is a frontier which is quickly growing in the UK and around the world but isn't quite where we'd like it to be right now.

We needed to find buyers that worked in the short term, people who

were consuming Ka-band capacity. We identified three fertile demographics. The first of those is the satcoms industry, which requires infills to connect to global audiences. The second was the US military, which consumes more than 25 percent of the world's global commercial capacity – we're able to provide good connectivity across the Middle East and Africa to this group. And thirdly, mobile operators who are now using satellite capacity for backhaul and community Wi-Fi, the latter of which I believe will be a big growth market in the future.

Question: In 2019, you equipped the Cornish Space Observatory with your superfast satellite broadband. With so many promising space projects projected, do you anticipate seeing the UK become a more prominent player in the world of space launch?

Kyle Whitehill: The status of the UK space industry is something we're quite involved with, particularly because we have an Earth station in Cornwall of our own. The fact is the UK has been one of the biggest contributors to the European Space Agency (ESA), and continues to be. The UK government has even agreed to increase their investments into that partnership in 2020.

I know something that's been very important to Europe is the development of a satellite constellation that's globally competitive, and I believe the UK will

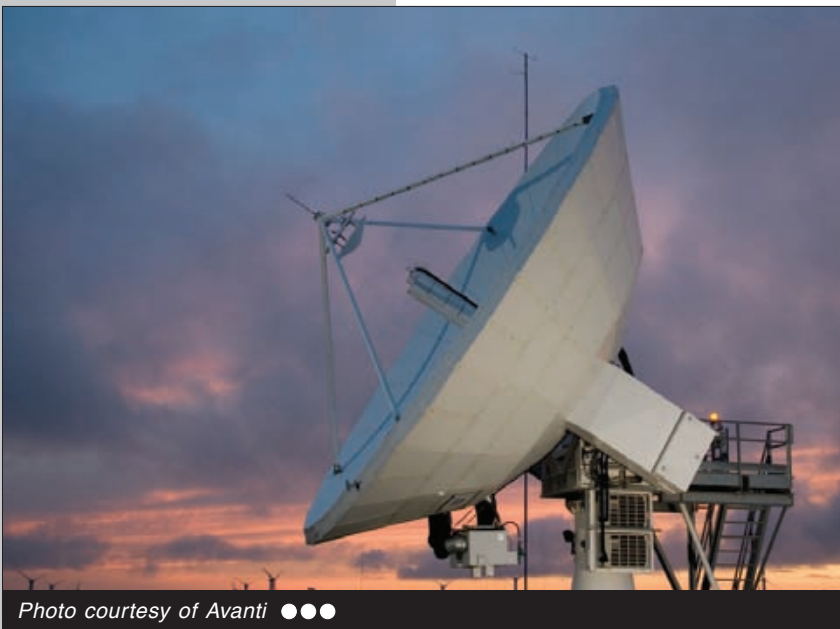


Photo courtesy of Avanti ●●●





have to play a strong role in delivering an achievement like that. That's the main reason why I feel optimistic about the UK Space Agency (UKSA) and Britain's growth as a growing player in the space industry.

Question: We've heard from a number of UK space industry executives that the UK will be best placed as a set of complementary, or disruptive developing forces. Do you agree?

Kyle Whitehill: The world is pivoting towards a dramatic investment in space businesses from the US and China. Those budgets dwarf not just the UK, but even Europe. So, I would say the question is more about Europe's role than the UK's specifically.

But yes, our work will need to be agile, flexible, and innovative to contribute to those powers. Europe will never be able to compete with the sheer CAPEX, but of course that doesn't mean there aren't a number of opportunities to really leave their mark.

I believe that Europe's satellite manufacturers are world class, which demonstrates the sophistication of our technology. Complimentary and disruptive success is on the cards for the UK and Europe, so I believe partnerships and innovation will be the best uses of our energy.

Question: With recent rumblings over increased interest from defence

forces toward commercial networks, do you predict seeing less friction between those two worlds?

Kyle Whitehill: About a year ago we went and met the US Space Command in Los Angeles, who had taken responsibility for both military and now commercial satellite capacity. They were figuring out how to combine both networks into a single offering to create the most compelling service to their customers. That's a very strong opportunity to remove the friction between the two worlds, though in my experience many commercial and military entities often collaborate without a great deal of red tape.

Question: We've been seeing increasing demands coming out of the defence sector to migrate communications from Ku-band to Ka. How is Avanti equipped to serve that market?

Kyle Whitehill: This is probably the thing that's been the most significant change for Avanti over the last two years. Earlier on we were very focussed on rural broadband, and though we haven't been distracted away from that goal, we've certainly worked to target more lucrative sectors recently, namely the US military.

The challenge there is in switching someone from one band to another. Of course, that's not just the actual satellite capacity itself, but rooted into the Earth station and terminal infrastructure

dependant on it. In order to address that we've worked to find the areas where people are expanding but can't get Ku-band capacity and need a solution.

Now it's tough to replace a provider, but when a provider offering Ku-band can't do the job, it's necessary to find suppliers that can and move forward with them. There are a variety of solutions in that instance and you need to work with people with the expertise to address them.

We see 2020 as being the fastest growing period for transitioning the Ka-band into military user demographics.

Question: With the critical moments of the 5G revolution set out before us, what role will satellite communications play as we shift generations?

Kyle Whitehill: This is a fascinating movement. My background is in the mobile sector - I joined Vodafone in 2001, at which time which we were in a 2G world. I can remember it vividly; the revolution of texting had overtaken us all. It was only at 2.5G when we gained the game changing ability to send an email on a phone, which would then take 15 minutes to process. Still, another revolutionary concept we simply take for granted just a few years later.

Right now, Avanti is delivering 3G and 4G to Africa for satellite backhaul. Delivering these kinds of speeds to developing areas has a hugely positive impact to the community.

I believe the role of satellite in 5G is going to include less consumer applications and more industrial ones, as the higher throughput gains the power to deliver increasingly staggering standards of transmission speed and size, which has the greatest applications for machine to machine tasks. This isn't because M2M requires high bandwidth consumption, but rather because it demands a huge amount of points of presence.

Of course, experts have long been predicting the actualisation of industry 4.0, but I believe satellite delivered 5G will offer the magic words necessary to give the incredible robotics we already have to respond as intelligently as the next steps of the automation revolution requires.

In terms of agriculture for instance, the ability to provide sophisticated IoT



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in very rural environments over terrestrial networks has the potential to significantly change the nature of our food production systems.

Question: How has Avanti responded to the emerging technology trends we've seen rising with 5G?

Kyle Whitehill: We've certainly made moves to lead the thinking behind the new standards and regulations required for 5G's great applications. A member of my team actually sits on the EMEA Satellite Operators Association (ESOA) board which is a working group which strives to understand the precise role of satellite in 5G and ensuring the stability of the companies working to deliver the new applications it will bring.

When you look at all the PR that's come out about 5G, it's the mobile operators that have taken the moral high ground in trying to deliver 5G on a global

scale, which is disappointing for me because satellite players hold such an integral role in delivering that movement too.

The closer we are to the broader discussions around these all-important topics the better we can express our intentions.

When it comes to customers in Africa, often the demographics we see are in a prime position to skip generations. Jumping from 3G straight to 5, or even from nothing right up to 3G. Satellite is the industry best placed to deliver that change.

Question: What are your targets for the future, and is there anything that you're particularly hoping to see manifest in the satcom sector?

Kyle Whitehill: I've only been around the satellite sector for a couple of years. When I first joined, something that

struck me was that the satellite industry was a fraction of the telecoms sector, though we still deliver an essential service that terrestrial networks can't because of our reach. Affordability and speed have always been a mainstay topic over the last 20 years, and for a long time, low costs and high speeds just simply weren't practical.

In 2020, that's starting to change as you see better availability and price points are becoming more competitive besides record breaking technology. In my eyes the future is now asking if LEO is the key to unlocking a new world, what with the incredible business case challenges involved in that market.

I do agree though that watching these more agile satellites will be prudent. Platforms that take far less time and money to develop while delivering competitive performance could really change the world.



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