Welcome to Check six with Accenture, a sponsored podcast jointly hosted by Aviation Week and Accenture. I’m Joe Anselmo, Aviation Week’s editorial director and editor in chief of Aviation Week and Space Technology magazine. As the industry prepares to descend on the Le Bourget of next week for the first Paris Air show in four years, it is a time of challenges, change and great promise.

So what will the stories be to watch at the 2023 edition of the show? We pose that question to two of Accenture’s aerospace and defense leaders, and they’re here today with their answers. John Schmidt is Accenture’s Aerospace and Defense Lead, and Joyce Kline is managing director for Aerospace and Defense Data and AI. John, you and Joyce took this very seriously.

You’ve broken down your answers into four stories. Let’s start with story number one. What is your perspective on commercial aerospace and where it is and the challenges it faces?

Well, thank you, Joe, and it’s good to be here with you again to have this conversation before the show, as you probably remember, and I’d like to just kind of share with anybody who is listening. Every year before we get to the air show in Paris or last year in the show at Farnborough, we take a look at what we’re seeing in our research, what we’re hearing from our C-suite clients, and what we’re hearing in Q1 earnings reports to really define and coalesce what we think are really the big stories that are going to be coming up at the show. And this year, we came up with four. The first one is really around what we’re calling reinvention and commercial aerospace, really the strategies and headwinds that are causing change and reinvention and how we think about things in aerospace. And we can talk more about that in a moment. For your first question here. But the second one, just to go ahead and put out there for everybody is really about what we’re seeing in the ongoing technology revolution.

I mean, it’s hard to read The Wall Street Journal or any other major media these days and not hear about technology and how technology might be changing our lives and how we work, how we live, how we play. The third one is around talent, and I think that would be evident to anybody who’s anywhere close to this industry.
And it's challenges we're having, whether it comes to engineering talent manufacturing, assembly, service. And then the fourth one, sustainability, which I'm sure will be no surprise to people are listening to aviation podcasts on a regular basis. So going back to it, after looking at what's going on in our and what we're seeing in our research and hearing from our clients.

Now, the first one talking about what's happening in aerospace, it's as you know, been really challenging time. And in a while we went through a challenging time of COVID, now we're going through another challenging time as we come out of COVID. And I think we're going to see the airshow, at place where a lot of executives are going to be meeting with their partners and talking about the ongoing challenges we're having with supply chain and how we're dealing with costs and interest rates, exchange rate changes and risk, and the geopolitical tensions that we continue to see across the world.

And I think it's going be very clear that they're definitely going to be talking about strategies and how to work together to deliver on airline customer expectations, to strengthen their collaborative ecosystems and at the same time find ways to invest in the talent that's required to make all this stuff work. So maybe if I just bring that to light a little bit, I think we start with some of the good news, right?

According to our research, global aerospace company revenues are expected to grow 14% in 2023. Now, this is no surprise when you look at the resurgence in commercial airplane traffic and improving macroeconomic conditions out there. And it gets us pretty close to where we were 2019 pre-pandemic levels. So overall, the executives we survey and this was just released in late April of this year, and we do it every other year.

It's a Commercial Aerospace Insight Report, you can find on our website. Executives are pretty optimistic. And if you look at the data that's coming out from IATA, I mean, industry, airline industry revenues are looking to be able that are up and looking to achieve profits of something around 5 billion a share in 2023 against losses of 7 billion in 2022.

And if you look at notable recovery areas, MRO and in particular what's happened in Asia Pacific around MRO is also really bring a lot of strength to the commercial aviation industry itself.

04:15 - 04:30

Joe Anselmo

Following up on that, John, I mean, I've been covering this industry for 30 years, and I think this is the first time I've ever seen an era where demand is outstripping supply.

04:31 - 06:22

Joyce Kline

Yes. Joe, thanks so much for letting me join you and John today. You know, alongside the optimism that John described, there is significant headwind from the standpoint of short term supply chain issues. And we actually expect that these issues are going to continue into 2024.

What we're seeing are shortages from engines to raw materials to semiconductors, and they've really all contributed to some of these broad supply chain challenges that have constrained revenue growth. But for airline manufacturers, there are options to address these supply chain challenges, and they come through in terms of vertical integration. We are seeing OEMs bringing operations in-house. We also are seeing closer collaboration with suppliers.
And then of course, there's opportunities from the merger and acquisition standpoint. Since it is an airshow, it's safe to say that supply chain will always be a topic that everyone has an opinion on. But if I take a little bit of an optimistic slant to some of the things that are going on and look at Accenture's recent Commercial Insight Report, what we found is that 82% of executives expect their production capacity to increase over the next 24 months.

So some good news, even though there are some current challenges. So if we were to summarize, if you will, our thoughts on the first topic, you know, about succeeding and thriving, what we're expecting is that executives really should have a re-invention mindset going into the show, thinking about how to be digital First, AI powered cloud enabled organizations that will allow them to basically take an approach that focuses on operations, on talent, on new technologies and overall collaboration across the ecosystem.

06:23 - 06:30

Joe Anselmo
Story number two is technology. John Is it me or is technology moving in what seems to be a mind boggling pace?

06:31 - 07:45

John Schmidt
But you know what Joyce just said, this is a perfect segue into the story number two here, it is continuing to evolve at a pretty mind boggling pace. I mean, last year we were talking about cloud capabilities and expansion of AI within the enterprise and the emergence of 5G and Metaverse.

And if you fast forward to this year's show, and we have to recognize that in all those areas, there's been steps in the forward direction on these things. And it's not just with an enterprise, it's actually in the products and the programs themselves. I'll just take cloud for an example. You know, Leonardo recently announced it was the first major defense company in the UK to migrate key parts of their infrastructure to the cloud.

You know, in the past, all the concerns you hear about security and all that stuff really slowed companies in this industry down, particularly those who served a defense side from adopting cloud technologies. But the new secure platforms are keeping pace with technology and security to be able to alleviate those concerns. And frankly, you know, we're seeing other aerospace defense companies starting to commit to make the move and build what is, in effect, going to be their digital core, which is also important as we look forward to leveraging technologies like AI, let alone generative AI, which is a whole another level of potential capability and transformational capability for these companies to consider.

07:46 - 09:59

Joyce Kline
John, I want to pick it up on the topic of generative AI and also the use of large language models. It's an area that I've been spending a lot of time on recently and we have open AI and chat GPT to thank for bringing this topic into the public domain. You know, these large language models and foundation models that are powering the advances that we're seeing in generative AI are really at a significant turning point.

Not only have they cracked the code on language complexity enabling machine to learn context and infer intent and be independently creative, but they're also quickly fine tuned to enable a wide range of different tasks. You know, one of the most important things that I think organizations need to be aware of relative to Gen AI is to have that strong data foundation.
And, you know, I think when you look at, you know, all of these advancements that are happening with Gen AI backing up the excitement, actually we have some data and it's the research from our recent technology vision which found that 99% of aerospace and defense industry executives are inspired by the new capabilities that are offered by these AI foundation models that are fueling the results.

We also have two thirds of global aerospace and defense executives expect their organizations to benefit from the excited innovation, excuse me, the accelerated, I should say, an exciting innovation that's generated through AI. You know, one of the things that's happening also within aerospace and defense is something that is, I think, very important, and that is the combination of generative AI and the discussion of responsible AI.

And the reason it's so important is companies are looking to ensure that their mitigating risk by putting in the appropriate controls, protocols and ensuring trust within their organization as they use generative AI. So I think at the show, one of the things that we're expecting executives to talk about is how generative AI is going to fundamentally change tasks and processes and how they're going to fuel change within their organizations.

He said, you can have all the technology in the world if you don't have the right people, you're going nowhere. Where does aerospace writ large stand on the talent issue?

10:31 - 13:02

John Schmidt
Well, as you probably know, I've been talking about talent as being a critical issue in this industry for years, going way back to pre-pandemic. And I would say he is absolutely spot on for all the high tech dimensions and complexity in the products that this industry produces.

The industry is still fundamentally a people business, and we need to have people who bring great relationships, talent and innovative ideas forward. Again, whether or not they're in engineering or they're working in manufacturing or assembly or service. You know, we did one of our surveys back in the fall, and 90% of the executives said that a lack of people, digital talent impacted their ability to meet customer obligations over the previous year.

And that's not just digital talent in terms of people working in engineering, in a digital threat. That's people on the floor being able to leverage digital technology to help them execute their processes better and faster. We hear all the time about, you know, the challenge we have re-hiring people into the industry who bring the right skills and the learning curves and the people retired early when COVID hit.

And so there's a mismatch now between people and technology. And it's requiring executives to rethink how they structure their teams and how they invest in technologies like artificial intelligence or digital twins. And then at the same time, you look at turnover and while turnover, it looks like it's slowed down a bit here in 2023 and seems to be leveling off, it's still an ongoing concern.
I mean, making sure that you can train and retain your talent over the longer term is really important in industry like ours, where there are so many positions where either a security clearance is required, or specific certification is required. When you hear some of the stories about master welders, right. And a component to the industry. And so you look at that and the final thing, I guess I talk about it in terms of talent is really what we see happening in Asia-Pacific.

You know, Comac has caused the interesting thing to happen in my mind. It's opened up our industry's eyes to the potential for talent coming from and not just talent, but capabilities. Companies that can be part of the supply chain from Asia Pacific. I'm not talking just inside China; I mean in the region. And, you know, when we looked at our most recent commercial aerospace survey, 88% of the executives expect that China's commercial aerospace aspiration are really going to positively influence their talent availability and the whole region over the next five years.

And 50% of them said that they anticipated changing their operating strategy in the region over the next two. That's pretty phenomenal to me in terms of what they're thinking here. And it's all goes back to what you said about how important talent is.

13:03 - 13:28  
Joyce Kline
So, John, I'll just add one thing on the talent agenda, and it's just kind of bringing it a little bit full circle.

And that's the importance of linking the needs of the worker relative to the digital tools that they want to enable themselves to be efficient and effective in the jobs that they perform. So it's making sure that we bring the right people with the right mindset to the right job, using the right digital tools to enable success across the industry.

13:29 - 13:30  
John Schmidt
Yep. Good point, Joyce. Good point.

13:31 - 13:40  
Joe Anselmo
And story number four, sustainability. Nothing new here. Everybody wants to talk about it. And we're trying to figure out, you know, what's hype and what's real. Fill us in, John.

13:41 - 15:30  
John Schmidt
Well, to give you a perspective that we bring to our clients, I mean, clearly, when you look at the projections of nearly doubling the number of global air passengers over the next 20 years, there's a tremendous concern about what that does to the environment and increasing our carbon emissions.

And, you know, there's a lot of things that are going on right now that are being looked at. I mean, the decarbonization of energy supply and the terms of sustainable aviation fuel or using hydrogen or electricity or even onboard technologies and flight deck optimization software to be more efficient and at takeoff and landing. But we recently released a report with AIA.

In fact, I guess I'd say it's a year ago now, so not quite as recently where we looked at new technologies that could be deployed over the next ten, twenty years into the fleet that would actually help drive those 2050 targets. And, you know, things like new propulsion technologies like open rotor or structural innovations like blended wing body or truss based, where that now you're starting to see coming into the marketplace.
And you guys have written about both of these over the last couple of weeks, even, you know, flight operation and control. I think there was an article just a couple of weeks ago about relooking at how that might play into lowering your overall impact of our industry and in terms of carbonization. But we think it goes beyond just these technologies and the product itself, and there's got to be a lot more effort at embedding sustainability to every stage of manufacturing and a delivery of products and services and really thinking about how to build more trusted circular net zero value chains.

I think Europe is actually, you know, leading in this respect, and there's some things to be learned there. But the U.S. is starting to catch up on this because I think there's a clear recognition of the social and economic benefits of being able to bring sustainability forward. So I think you see a lot of stories coming out this year.

And the show, I'm sure, is I read show news every day that there's going to be something probably in every day talking about sustainability.

15:31 - 16:04

Joyce Kline
I will say on the sustainability front, I don't think that there is a silver bullet to achieving sustainable practices. And it's really, John, as you said, it's the small steps that organizations can take, whether that's, you know, tied to the materials that they use, aerodynamics, weight, fuel efficiency, or even focusing on life limited part.

So I agree with you, John. I think at the show we're going to hear executives talk about the little steps that they're taking relative to building overall sustainable practices across their ecosystem.

16:05 - 16:14

Joe Anselmo
Okay. Well, we're almost out of time, but we need to continue our tradition, which is to ask the two of you what your predictions are for the show.

John, you first.

16:15 - 16:31

John Schmidt
Well, I'm going to take a safe bet here, Joe, and I'm going to predict that after a four year hiatus, this is going to be the largest Paris Air show ever with more exhibitors and more attendees. And I will tell you, I'm very pleased that Accenture will be a major sponsor of the show this year.

So that's my safe bet prediction.

16:32 - 16:58

Joyce Kline
I'm going to go a little bit out on a limb here, but I'm going to be consistent. So from a consistency perspective, my predictions have always been about the weather. And I'm going to tell you that this year I'm going to be right. But I want to take you back a little bit to the floods of Farnborough.

Not to be outdone by the oppressive heat in Paris and then the record breaking temperatures in Farnborough last year. I'm predicting that this year's air show will have the best weather ever.
17:00 - 17:40

Joe Anselmo
Well, we will have to definitely come back, Joyce, and see if that comes true, but I certainly hope it does. Looking forward to seeing both you and John in Paris.

That is a wrap for our podcast. John mentioned show news. If you want to blow by blow account of what's going on at the show, be sure to download Aviation Week's new app. Go to aviationweek.com/app, aviationweek.com/app. John and Joyce, thanks for your time. Thanks for your insights to our listeners. Thank you for your time as well and have a great day.

This video makes descriptive reference to trademarks that may be owned by others. The use of such trademarks herein is not an assertion of ownership of such trademarks by Accenture, and is not intended to represent or imply the existence of an association between Accenture and the lawful owner of such trademarks.

Copyright @Accenture 2023. All rights reserved.

Accenture and its logo are trademarks of Accenture.