

REINVENTING DOWNSTREAM FOR THE ENERGY TRANSITION PODCAST

Amy: Hello, and welcome to this month's podcast. Today, I'm speaking with Pedro and Ashley Rochelle from Accenture about how they're working with their downstream oil and gas clients in response to the energy transition. Over the next 20 minutes or so we will cover where disruption is coming from, regional differences on energy transition policy, what future downstream value chains look like, the role of digital in reinventing downstream operations and Pedro and Ashley Rochelle will also share their advice on how to reimagine and future proof your downstream business. I'm really excited to have Pedro and Ashley Rochelle here with me today from Accenture. I'm going to start with a question for you, Pedro. Maybe first of all, could you tell me a little bit about your role within Accenture?

Pedro Caruso: Yeah, happy to Amy. Well, it must be said, my name is Pedro Caruso and I lead Accenture's global downstream practice.

Amy: Perfect and can you tell me a little bit about the journey that you've had from starting your working career to the role that you are in today?

Pedro Caruso: I'll be very happy to. Started my career as a chemical engineer back in Venezuela, my home country. I worked for the Venezuelan oil and gas industry for a few years. In the '90s I did refining, did supply and trading, including some refining optimization, logistics and so on. Then I decided in 2000 that I wanted to try what being a management consultant was all about.

I had a few friends in the business that were very excited about the work they were doing and I got curious and I said, "Gee, let me go and do this for a couple years." A couple years turned into 22, which is where I am now. I started with a firm called Booz Allen Hamilton back in Venezuela, moved with them to the US, and eventually found my way to Accenture three years ago, attracted by Accenture's unique position in the intersection of business and technology, that's so important for the industry nowadays.

Amy: Fantastic, 22 years? I guess when you're having fun time flies, right?

Pedro Caruso: Absolutely and I have the gray hair to show, it does leave a mark.

Amy: Oh, sure. Well, Ashley Rochelle, how about you? Can you tell me a little bit about your role within Accenture and then a bit more about your journey from where you started to where you are today?

Ashley Rochelle: Sure, thanks Amy. I am Ashley Rochelle Horstman. I'm a good Southern girl with my double first name there and I work closely with Pedro, where I lead our North America downstream practice, looking after our downstream clients here in the US and Canada.

Amy: And tell me a little bit about where you started and where you are today.



Ashley Rochelle: Sure. I kind of fell into the energy industry, I'll give a little bit of background there. I joined Accenture right out of undergrad, I went to Rice University in Houston where I studied psychology and business. I came into to Accenture as part of our resources practice that goes across utilities, energy, chemicals, and natural resources. I started off working with a steel client, was sent straight to a steel plant in Gary, Indiana, which was a great introduction to heavy industry and created some of my love and interest for heavy industry. I quickly realized there's not a lot of steel plants in Houston so I transitioned that love of heavy industry into the downstream industry specifically. I've chosen to focus on downstream because I really like the end to end value chain aspect of it, that we cover everything from the feedback through production, all the way through to sales and marketing and really thinking about end consumers. I think it's an exciting part of the energy value chain and it's been a great place to grow my career.

Amy: Maybe you could both tell us little bit about how Accenture are working with clients in response to the energy transition because I know that's something that we've been involved with you guys on for the last couple of years. Just in terms of the round tables that we've run and various sessions at conferences, et cetera. Pedro, perhaps you can start with that.

Pedro Caruso: Yeah, I'll be happy to. Let's just start with stating the obvious, which is that the transition is real and it is picking up pace and it's not only about crude production, which most people when they think about the industry, they think about crude oil in an abstract way, but it is impacting all the value chain from where companies are deciding to invest, in which fuels and technologies, all the way down to what gas stations they have and how they price their fuel oil or the gasoline as they ensure the [dispersion 00:05:03] of their products. We at Accenture, I'll be surprised if there is anyone larger than us in the oil and gas space. We help across, from helping clients do better work in understanding where the oil and gas is under the earth, how to extract it better, in a more responsible way, all the way down to how to serve the customers better.

And the energy transition is changing quite a bit of things since we found out that CO2 was a pollutant, the methane emissions are a bigger problem than maybe some thought at the beginning. There's been a lot of effort on emission management that we've been a part of with our clients. But there's also a lot to do on the more downstream side, which is what Ashley Rochelle and I focus on, the bulk of our energy. For example, renewable fuels, there's been a significant increase in the use of renewable fuels across the globe, definitely in Europe and North America. That comes with changes to how refineries work from, starting from the fit stock is not anymore crude oil, it's something else, all the way to how it's sold.

You now have customers and I'm sure we'll talk about this more during the podcast, but as customers become more and more concerned and action oriented about their environmental footprint, they are demanding different products and services from their energy providers and oil and gas downstream companies have to adapt to be able to be not only the person that's selling the diesel or the jet fuel, but also the people that are helping their clients make the transition by helping them manage their own emissions and energy mix. So we have people helping clients across the full value chain on all of those pieces, particularly with business and technology intersect. So a lot of work on data, analytics, changing ways of working and so on. It's actually a very exciting time to be in the industry.

Amy: Yeah, I can absolutely agree with that. I think as much as there's disruption and where disruption comes, excitement can come as well, so there are some positivity's around some of those changes. One of the questions I wanted to ask you around that was maybe from your perspective, what are some of the regional differences on energy transition policy and regulation that you see and what is the wider impact on the downstream industry from those?



Pedro Caruso: That's a great question, and kind of stepping back, the way I like to think about it is that there are three sets of drivers that are actually enabling and accelerating the transition and in no particular order, they go from behavioral and societal change, so you and I, and other people expecting different things on the way they move, on the way they buy services on the way we expect companies to behave. That naturally impacts the second big factor, which is the regulatory and policy, which is the one you're asking about. But very importantly, there is a third one around innovation and technology that's connected to the other two. And when you think about this from a global and regional standpoint, you can say that a lot of that innovation and technology transfers across the globe, so in the same way that electric vehicles are becoming cheaper in Europe, they're also becoming cheaper in the US and in other places, similarly with when it comes to wind turbines and solar panels and so on. So technology has a way to change the economics of the different energy choices that people are making in a global way adjusted by geographic supply chain differences. Behavior are different, there's a lot of cultural elements to what we value as a whole, but we can all agree that there's been a big movement globally towards awareness about the environment and the need to address it with some clear links to the state of economy development. So the richer a society is, the more likely it is to be able to invest in the energy transition and we are seeing that, and that gets reflected in the regulations. And we get these questions quite a bit, it used to be that Europe was very far ahead in their thinking about the transition. We now have some states in the United States that are very progressive in the way they're tackling this, particularly California. And then throughout the world, you have different examples of different regulatory environments. And in general terms, the regulators are intervening, either mandate the use of certain low carbon fuels as you've probably seen, or to take into account for the cost of carbon. And when you put all that in the mix, what it's resulting in is an accelerated transition in Europe, where we are in the process of experiencing a demand contraction, accelerated by COVID but after the COVID rebound we'll see a contraction in demand in the coming years.

And when demand contracts, then you certainly have excess everything. You have excess pipelines and excess tanks and excess refineries and excess gas stations and so it's hard for the industry to adjust to those changes. In the US we're a few years behind, but it is on the horizon, and we actually have some markets that have shown some changes already. And as I like to say, downstream is a lot about localization, at some point it's a hyper localized business so you are going to have a very different impact in LA that you're going to have in, let's say Paris, and the industry has to adapt to that in a different way.

Amy: That's really helpful, and kind of just, I suppose, using those three vectors as a context, Ashley Rochelle, maybe from your perspective what will the future downstream value chain look like?

Ashley Rochelle: Yeah, that's a million dollar question. Well, probably more than a million, multi billion dollar question, Amy. I think as Pedro talked about, what I see is a lot of this really being shaped starting by what the consumer demands are and will be. A lot of the uses are going to be the same, but there's some new expectations around the carbon intensity of those uses and also shifts as a result on where our clients today and energy companies will make money from the customers that they serve today. So we see a shift, for example, obviously from gasoline to aviation fuels, for example, and into more chemical uses. And I think that's important to bear in mind because that also shapes the value chain on the other end, obviously where we see a lot of shift happening is on the sources of energy, having it available, like biofuels and electricity that are heavily shaping what the new options are that our clients and downstream companies are considering, if they think about which value chains they want to participate in.



And I think what's been really interesting is to see how those things come together across those chains and also which chains clients want to participate in, where they lean in more heavily, how do they utilize their existing capabilities to participate in those chains and which ones they're leaving for others. So obviously seeing a lot of interest in biofuels recently, hydrogen, and then into... What I think is interesting about this and what is important for downstream is that it's already an extremely complex business and the complexity around the existing hydrocarbon value chain has driven challenge and opportunity for our downstream clients already, as they work to optimize molecules all the way across the existing value chains.

When you add in new sources and new uses or different customers that have different priorities than our clients are used to today, that shift only increases the amount of complexity that downstream companies are going to have to deal with and as they think about existing optimization opportunities that they're already working to improve on, it creates an even stronger need to work that out. So I think it's just a really interesting and challenging time to be a downstream company as you think about how these dynamics will play out.

Amy: It certainly sounds like it. I don't know if you'll be able to share this, but in light of the challenge that companies that are facing and the context in which they're operating, do you have any examples you can share with businesses that Accenture have worked with, who are successfully adapting their business?

Ashley Rochelle: Well, I'm going to just take a step back from there and just maybe talk about some of the big things that we see clients needing to do to respond to it and I've hit on a couple of them, but I think there's five that are pretty critical. One which Pedro has already mentioned, and that I talked about a little bit when we talked about value chains is really rethinking what your portfolio is. He was saying, we need fewer refineries, fewer gas stations, well, there's a big question of what do I need more of?

Interest in what my midstream assets might need to be, how do I utilize inventory storage opportunities, especially while there's more arbitrage opportunities happening now for example. So one is on portfolio and resetting what the portfolio would look like.

The next is on cost leadership because while a hydrocarbon molecule will continue to have a role for an extended period of time the need to reduce cost around that kind of base asset is an extreme imperative for our clients and one that almost every one of them is working through as we speak. The third is decarbonizing everything, and we've already talked a lot about that, both how you take carbon out of the inputs, how you take carbon out of the production assets and the production process and then finally out of what your customers are consuming as well.

The fourth is customer centricity, which is one that some clients are better at than others and have as a stronger priority, but isn't it necessarily a natural for energy companies who tend to think more asset forward than customer back. And so we think that will be increasingly more important as there's a war for taking market share in the near and longer term future. And then finally is responsiveness and that hits on the topic that I was mentioning before around the ability to really utilize your assets, think about how they work together and take advantage of opportunities in the market more rapidly.

Amy: So you've mentioned this, and I know Pedro mentioned it in terms of kind of the innovation aspect as well, but what will the role be of digital when it comes to reinventing downstream operations?

Ashley Rochelle: Yeah, well, you can't work for Accenture without thinking about the impact of digital across the space and for me, it's almost ubiquitous. It is comes part and parcel with every one of the imperatives that I mentioned. Let me just pick on a couple that I think are especially relevant. When we talk about cost leadership and you talk to a refiner who's been focused on cost reduction since they



walked into the refinery on day one, telling them that there's a further need to reduce cost, sometimes they look at you like, and what else do you want me to do? And for me, digital plays an incredible role in terms of the opportunity there. We've seen up to 20% improvement in time on tools through the use of digital technologies, making data available to maintenance and operations workers at the app, which has a direct impact on cost reduction, for example.

Similarly, utilization of digital [plans 00:17:02] to reduce the need for inspections and get more value out of the inspections that are being done. Similarly, it has a significant reduction of cost as well. So for me, digital is kind of part and parcel with being able to drive a cost agenda. And then similarly, let's pick on customer centricity because I think it's equally important that downstream clients and companies work to better understand who their customer is and what their needs are. The availability of analytics and utilizing data and analytics to identify, personalize and drive an experience for your customers is founded on digital technologies and will have a significant opportunity for those that are able to harness the value of that data. So those are a couple that come to mind. Pedro, maybe you have a couple of others that you'd add?

Pedro Caruso: Yeah, I mean, and linking it back to Amy's question earlier about the transition, I think the industry is facing multiple forces at the same time. One is the need to transition the energies that we use and how we use them, but the other one is the digital revolution. And I'm still surprised by walking into many of my clients and seeing things being done the same way that were done in the nineties when I started in the industry. And you have to wonder, why are we still using spreadsheets for this? Why are we still picking up the phone to call a terminal to check on inventory levels in the morning? And the truth is that the industry has been slow overall in adapting the use of this technologies, it's a historically very conservative industry for multiple reasons including the fact that the investments are made with decades [horizon 00:18:54] instead of a couple years horizon and therefore that requires a lot of thinking and thought and care in the way a lot of the decisions are made.

But when you compare the industry with others, we're certainly lagging in adoption of the possibilities that the digital and all the cons with it, the data flows, analytics, the possibility to do work in a very different way, [inaudible 00:19:23] companies. And we're seeing a lot of honest efforts, and we're seeing a lot of companies ahead than others, but there's still a lot to do and I think the areas that Ashley Rochelle mentioned were spot on, and I as a former chemical engineer love the possibilities that the digital analytics actually have for the refineries and the movement of the molecules themselves. There's just so much more that that molecule, can be optimized and managed, at the same time, we're managing emissions and so on. It's exciting to see companies embracing that more and more, but very few are cracking the code on how to become innovative enough to be able to evolve in the way that's required nowadays.

Amy: Well, with that in mind then, and it sounds like there's a huge amount that refiners are having to do, and having to think about consistently in terms of being more efficient and being more technologically and digitally aware, having to look at transition in a different way, Pedro, what can Accenture help with for people listening and how are you doing it?

Pedro Caruso: I mean, the best way to think about Accenture is to think about us as your at scale partner. We are ready, willing, and able to get our hands dirty to make big change happen, and by big change I'm not talking about redrawing your org, which of course we do as needed and as you consider the digital to revamp the ways you work, you actually have the opportunity to reorg. But I'm also talking about bringing data at scale into how you run your company. So for example, we have large scale maintenance efforts with multiple refiners where we are in a very fast way, just changing the way they do inspections and risk based maintenance and so on.

We're also working at scale with companies trying to optimize the way they run their commercial operations. Again combining data, analytics, workflows, people, digital tools, and doing it fast, that's what we're uniquely positioned to do with our clients and what our clients need the most in this time.



For that the industry could pick up a trick or two from other industries who are well versed in having a large ecosystem of partners. And I use the word partners on purpose because it's not a vendor relationship, it's about working together with people to do things in a way that you haven't done before, and that's what we do best.

Amy: And so, I guess, finally, for people who are listening into this podcast, what advice would you give them, in particular if they're struggling to really reimagine and in particular kind of future proof their business. Pedro, maybe I'll start with you and then go to Ashley Rochelle afterwards.

Pedro Caruso: Yeah, no, absolutely. I mean, this is such a hard question, Amy, because there's so many things to do, so many priorities. These companies are immense. I mean, even the smallest oil and gas companies are very large and change is difficult and the concept of future proofing, it's hard. I mean, there are very limited options for some of the players in that they are only on the upstream side. Over time, and it's not in the next year, it's not in the next five years or 10, but over time demand for oil is going to come down, and if you define yourself as a producer of oil, then that's going to be a challenge. If you define yourself only as a refiner of oil, then that is going to be a challenge.

So the future proofing requires an evolution in what Ashley Rochelle was talking about, starting from the portfolio all the way down to how you deal with your customers and run the value chain, there's no shortcut for that. People need to be bold and ambitious in setting their change programs, because it is going to be needed. If companies in this sector in 2030 look a lot like what they look today, the chances are that they're not going to make it.

Amy: Makes sense. Ashley Rochelle, what about from your side?

Ashley Rochelle: Yeah. I mean, I think what Pedro said is well stated so I'll just add just a kind of perspective onto that. Energy, broadly, and downstream, maybe specifically, is old industry that has gotten that way through continually managing risk and being very focused on consistency of outcome and there's a lot of greatness that's come from that.

When we look at the amount of disruption that is ahead of the downstream industry, that mentality is not going to work anymore because there's no consistency, you're going to have to accept risk and you have to be willing to change rapidly. So the infusion of new ideas, adjustments to culture and the willingness to try some things out is, I think, it maybe sounds like a baby step, but it's the big thing that I think downstream companies are going to have to get their heads around to make it through this transition and be a strong industry on the other side.

Amy: So it sounds like one of those things when you say at least acknowledging that you have a problem is the first step and then once you've done that, then you can start to understand what those biggest challenges are and which ones you want to tackle in which order.

Ashley Rochelle: I think that's right and then just on top of that, Amy, they're not going to be able to solve this problem the way they've solved every other problem before. It's going to take some new skills and new mindset to get there.

Amy: Good advice. It doesn't happen overnight. Well, listen, Pedro, Ashley Rochelle, thank you so much. I think what we are keen to always do is to put some new perspectives to our members to see what they can be doing and how they can be making changes and I think some of the advice and information today has really been helpful and will help them to look at that in a different way. So I really appreciate the time. Thank you so much and if there's anything that anyone else wants to know in the way that Accenture can help them, then please reach out. I will be happy to share contact details, but thank you very much, Pedro and Ashley Rochelle for today. Much appreciated.

Ashley Rochelle: Yeah. Thank you, Amy.

Pedro Caruso: Thank you, Amy.

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