

037 - Art of Engineering - Andrea Sousa

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Denise McIntosh speaks with Andrea Sousa, Commercial Director at the PIAB Group, about growing up as the middle child, always being ready to change when life throws a curve ball, coming up in a male-dominated field, and how AI is transforming her role and company.

TRANSCRIPT

Denise:

Welcome to the Art of Engineering podcast, and today I have a special guest, Andrea Sousa, with the [PIAB Group](#), who is the commercial director for the vacuum conveying division. Welcome, Andrea.

Andrea:

Thank you. Denise. Thank you for inviting me.

Denise:

And just a little background, Custom Powder Systems has done some business with PIAB over the years because sometimes our equipment needs some of their equipment, and we get to put it together, and we got to meet earlier this year in person, and that started this conversation. So, Andrea, tell me how you got into this male dominated field and what happened in your childhood to bring you to this.

Andrea:

Yeah, no, yeah. Thank you so much, Denise. You know, I, I didn't actually realize that in, in my career, I've, I've pretty much always been in male dominated industries until later in my career, other women started to point this out to me, so it was a little bit of a surprise to me, in fact, when

I realized that this was the trend in my career. But what was the question to me? Sorry, I was reflecting on male career

Denise:

How did you, how did you come to make the choices? Like you know, did you have childhood influences? Yeah. You got to your choices for college and beyond?

Andrea:

Yeah. Yeah. So so for me, you know, I'm, I'm one of four children and I'm a middle child, so very often forgotten in the lineup of family. And so I always had to be a little scrappy, right? To be heard, to get the things I wanted. You know, I was like the forgotten middle child. And so when it was time to go to college, I, I really didn't wanna be beholden to anybody. I wanted to make my own choices. I wanted to graduate debt-free. And so that's that's not easy to do today. It for sure was not easy to do when I was when I was a college age So I decided that I would work full-time, and then I would go to college full-time at night, at a local, at a local college. And so, so that's what I do.

I was very much on the mission. And then partway through that education, my younger brother was diagnosed with leukemia. And at that point in time, of course, now my, my master plan is a little bit blown up. We had to do some fundraising for him because at the time my father's company's insurance refused to pay for cancer treatment. So our family then had do all this fundraising and and, and, you know, it was very obviously traumatic, but it was that experience that actually helped me to realize that although you have the goal, whatever that goal is, that it's so important to not forget the people in your life, right? Because without them, it's like, what, what's the point of what we're doing? And so as a result of that I really got involved in the cancer community. I joined a board of directors for a, a national cancer coalition group. And long story short, my brother is, is alive today, and he's, he's doing really well. But it was kind of that, that turn that got me really interested in technology and in medicine and in ways that we can help help other people medically. This kind of, of what happened for me there. And then just by the nature of that, it kind of morphed into tangible things like CT scanning and then industrial equipment and that kind of a thing.

Denise:

Now, somewhere along the way, I think I noted that you got to spend a year abroad.

Andrea:

I did. I did spend some time abroad. Loved it.

Denise:

Tell me about that.

Andrea:

So, in my, in my college journey and with my, with my brother and his diagnosis I did two things. I took some time off from college, but on the flip side, I decided I would actually study away. And so I kind of helped the family and then realized, you know, I need to do some things for myself as well. And so I applied for a study abroad program at Oxford Brooks University, which is based in England. And and I did that, and I remember my mom saying to me, oh, you can't do that. And I was like, no, I'm doing that. And so I did, and I got accepted to it because not everybody, you have to have a certain GPA to be able to be accepted there at that time. Anyway and I did that, and that actually really enlarged my view of the world and made me realize that the views that we have in our country are not, are, are not even remotely close to other countries. And, and that's okay. But it was very eye-opening for me, and it's helped me to relate, I think, to other people in, in an easier way because of those experiences I had there.

Denise:

Oh, I think that would be so great. I mean, I can only imagine the cultures and the, of the people, other students there, not only the students, but the faculty and, and the whole area.

Andrea:

Yes. Yes, exactly. And I remember specifically being in a class where it was, was an international business class. And so it was very diverse in there. And I remember there sitting in the classroom, we were, I, I, I don't recall exactly what the topic was, but I remember being as a student, there was a female student that was in my same group, and she had her own thoughts and ideas, but every time this other gentleman, well, he was a kid, I suppose now, but this other student, male student would speak up. She would immediately withdraw. Like any male student actually, she would immediately withdraw. And I remember thinking, why is she doing that? And I learned afterwards, it's because of where she was from in the world that was very normal, to just kind of not have your views anymore, and you just defer to the male. And so that also has helped me a lot to understand that just because somebody's quiet or their culture is different, it doesn't mean that they don't have these strong opinions. It's just maybe they're not in a position where they can comfortably speak them. Right.

Denise:

Yes. Well, I, I relate to you as a middle child. You, we, we had to learn to speak up early

Andrea:

Yes. Or we'd starve to death, right, Denise?

Denise:

That's Right. That's right. <Laugh>. So tell me, tell me about PIAB. Who's PIAB and what is your role within that company?

Andrea:

Yeah, so PAB is a global company. We're a Swedish company. And the division that I work in is in vacuum conveying. So in, in my division, our goal is really to provide safe, hygienic, ergonomic solutions for moving different kinds of solids, like powders or small parts or granules. And it can be something that's food related or chemical related, or plastics and things and all kinds of different materials. Sometimes we move you know, explosive materials and things like that. And so the whole company is based on innovation. So so, so for my role as commercial director for North America, and so Central America, I lead a team of engineers and sales people, and also marketing. And it's really dynamic, really dynamic. We collaborate with other countries we learn from each other. We get creative together in how to approach challenges. And it's, it's really, it's an exciting, it's an exciting company to be at.

Denise:

Well, I mentioned that, that we've done a little work together and we're exploring some other options, but it's interesting how things are relatable and come together as a, as a part of a system to handle dry materials.

Andrea:

It's, it's, I think it's very interesting too. I mean, the, the requirements of our customers are so diverse, and we really have to understand what the challenges are to come up with the, the right solutions and be being able to pivot too, when we think we have the right solution, we're like, well, this could work, but actually there might be a better way. And to kind of take those calculated risks to do like a redesign and, and, and really get it right for the customer.

Denise:

So you've had a career path that has gone through kind of healthcare software, the food industry, and then how did you find PIAB?

Andrea:

So that's, that's a really interesting question. So at the previous company that I worked at, I had started in their food division and, and also they were an OEM and, and they made some other chemistries for food. And then I was asked to start up a new effort in their chemical division. And so I did, it was a business development kind of a role, and it was brand new and it was exciting. And as the, the longer that I was in it, I realized that I was not passionate about selling commoditized things, right? I was really passionate about creating custom solutions for customers. And so I was like, oh, maybe I'll start to look around. And I found pab, and what I really liked about them is that they are an international company. They're based on innovation.

So when we think about companies and how they have that staying power to be around for 20, 30, 50, a hundred years, this is the company that's going to be around for another hundred, 200, 300 years because they don't stay still. Vacuum conveying was not a specific kind of a solution that I was super familiar with. I'd seen conveying solutions in industrial applications, but by no means was I an expert. And so it's kind of been a, a big learning for me to learn about our

technology and how versatile it is and then the opportunities we have for more innovation and growth. So I really find it super interesting.

Denise:

Well, I'm glad, I'm glad you mentioned that you didn't know a lot about it, because I have found over the years, I'm not the technical person. I'm the sales and marketing and and non-technical person. And what I've found is that by not being the technical person, there's not a question we won't ask

Andrea:

<Laugh>. This is true, because

Denise:

We're curious.

Andrea:

I agree. I agree. And, and having that mindset of being curious and, and being able to take those calculated risks and being able to really explore even the hard, the hard things, I think is what really makes makes us as contributors really unique and influential because in order to, you know, grow and, and to expand, you have to have that, that way of thinking. And not everybody does. So it's nice. Right? It's nice that we're like-minded, Denise.

Denise:

Well, it is. And, and I, you know, over the years I've even had e even Mac, my husband has said to me a time or two, I can't believe you ask that

Andrea:

<Laugh>.

Denise:

Well, you, you know, if it's something you wanna know, nobody has to answer something that you ask. And yet I find that it really helps who you're talking to expand their thinking about explaining who they are and what they do and how they're doing it.

Andrea:

I agree. It's almost like we're helping our customers who then in turn also help us help them. So,

Denise:

Yes. It's like this

Andrea:

Circle of knowledge in, in awakening, right? <Laugh>?

Denise:

Yes. Well, actually part of our marketing group calls that process uncovery.

Andrea:

Uncovery. Nice. Yeah.

Denise:

I just think it's a great term. Yeah.

Andrea:

Yeah. It's,

Denise:

It's that part of being curious

Andrea:

Yes. Going layer by layer and just kind of opening up the mind.

Denise:

Yeah,

Andrea:

I like that.

Denise:

You mentioned that you were surprised after a period of time that, that what you've done all these years was not where there were lots of women. So have you discovered mentors along the way that helped smooth that process?

Andrea:

You know, I have but later in my career in the early days of my career, I did not have mentors. And it was only once I reached sort of management type positions that I kind of formally had mentors. I think for me, a lot of the mentoring I got wa initially was through books, right? Like I know there's so many great trade organizations out there now but you know, earlier in my career it was really more about reading. And so I've kind of kept that, that you know, interest in, in that, in that trend. So I, you know, I have a couple of, of influencers, like very very prolific writers that I, I always enjoy and I reference them, you know especially when I'm looking for inspiration like Simon Sinek like Patrick Lencioni.

Those are my two, my two kind of go-tos. But I think back to your question about mentorship later in life, I had some unexpected mentors. I had I had somebody in HR actually that was a mentor to me, which I, I find that to be unusual because usually HR is not doing the mentoring, right? Like, they're the therapists, they're <laugh>, they're the, the ones that are trying to help you game things out and, and, and make sure the people are okay, but, but not actually in a mentor role. And I remember I had this fantastic HR mentor and I'll never forget one of the things that she had shared with me, and at the time, I had been in a, in a sales type role for like a really long time. And she, she had said to me, no, Andrea companies aren't going to remember Andrea Sousa as the star salesperson, or the one that led their teams to like quarter over quarter, you know, exceeding targets.

They're not gonna remember that about you. And I said, well, why not? That's my job. Why would they not remember this? And she said, because companies don't remember these things, because companies are made up of people, and people will always remember how you made them feel. She said, so if you wanna be successful, you have to remember that it's how you work with people and what they leave, they basically take away from you just as much as what you are taking away from them. And that always resonated with me. And so even now, kind of, you know, as I meet new people and, you know, I work with my own teams, like that's always my goal to kind of leave them in a better space than I found them in, right?

Denise:

Oh, yeah. That, you know, that is such a great, that's such a great lesson to learn.

Andrea:

I think so, yeah.

Denise:

And I can remember when I was in the ag industry, there were people within the company I was with who helped with transportation, with logistics and be it rail cars or trucks. And I remember somebody, one of our other salespeople saying to me one time, how is it that you get seemingly to the front of the line for this stuff? And I had to think about it. And, and it was pretty obvious I treated those people who did those jobs well. I just made a point to mm-hmm <affirmative>. <Laugh> to thank them and to, yeah, it does. It's, it's not a, it's not a difficult

Andrea:

Thing. It's not, and you know what, it's not, it's not difficult if you have the mindset, but I think, you know, in, in, in work, we're so focused on the goals, right? And making sure that we do all the right things to get to the goal. And, and sometimes I think it's, it, it can be hard to just do the simple things sometimes. Like say hi to somebody when you're passing them and you're running, running through the hall with the blinders on, right? But, but, so, you know, yeah. And but I think too that it's like a conscious decision, right? Like, we want this for our people. We

want this for them. So we're gonna work hard to make sure that we're doing those as the right things to help us.

Denise:

Well, speaking of how can, how do we help make our lives and jobs easier? Tell me about how you are using AI and in particular, I think there's something you use on your website.

Andrea:

Oh my goodness. Let me tell you about AI. Denise <laugh>. Okay. AI is so exciting and so intimidating at the same time. And scary to some very scary to some, but, but let me tell you a little bit about AI from my perspective, and then I'll tell you how it's helping me in my job and helping me to be more like a more efficient professional. Because I, you know, joining PIAB, this is the first company I've worked at that actually had in-house AI that was designed specifically for, for the company which she does have a name, she's called Pixie. So cute name. And so, yes, we often are in conversations and we say, well, I have to consult with Pixie as if she's an actual person because she actually helps so many of us in what we do. But you know, there's a lot of kind of interest and excitement and a little bit of stigma with, with AI right now, because I think, you know, at least for me, coming into PIAB, I didn't really understand the differences in the different types of AI and kind of AI just went into this giant bucket and it was like, oh, that's AI.

Andrea:

What does that actually mean? But there's different, different levels of AI. And the, the AI that we have at, at PIAB is kind of the baseline. It's, it's kind of an, it's called like a, a narrow AI. So it basically is able to do specific functions. Think of it like when you're talking to Siri or Alexa, right? Like, you can ask them certain things, and then they pull from a, whatever the data sources are, and they kind of come back with answers. This is what Pixie is like, but it's like on steroids. And so so there's no like advanced learning or anything within the way Pixie is designed, like it doesn't understand emotions or, you know, the, it's not advanced in that way, which actually makes it a little bit more comfortable to use because you don't feel like somebody is like analyzing and going to lead you down a wrong path towards something.

Andrea:

Which I know is a fair for some, but I, I love Pixie. So some of the ways that I use her to help me do my day-to-day work she, she's a great translator. So PIAB's a global company so there's lots of different languages in play, lots of different contracts to review in different languages. And she helps to kind of navigate that. She's great at refining language. So for me, the way that I work is I take like the big picture and then I break it down into understandable elements. And then I like to word these things just perfectly. And sometimes it's the wording and the precision in the language that takes me the longest, right?

Denise:

Yes.

Andrea:

She actually will refine it. So if you take your ideas and what you wanna say and you share it with Pixie, then she'll come back with really beautiful refined, simple articulate language that literally saves hours off of, of certain kinds of work, emails things like that. I wish everybody had a Pixie

Denise:

Oh yeah, <laugh>. I haven't given mine a name yet, but I do use ChatGPT quite a lot.

Andrea:

Yes, yes. Some very si very, very, very similar in that. Yep. But you know, it's like information moves so quickly and the demands of business constantly change and increase, right? And so if we can find a way to just make our work more efficient, especially when it's the cognitive things and that, like that refinement of language you know, and I can save, I don't know, 10% of my time because now I've got this kind of assistant helping me. That's a really big win for me in, in how I work

Denise:

Well and gives us maybe, maybe gives us back some thinking time instead of the doing time.

Andrea:

I agree with you. I totally agree with you on that. And I think with AI too, it's sometimes, sometimes the response is, oh, I can't believe you use AI. Those aren't your own thoughts. Well, actually, it's how you use it. So if you have great thoughts, you just need a little help with articulating, it's a great art articulator. The other thing too that helps me be more efficient using AI is for example, in an interview process. So, you know, right now I have three open, four open positions on my team. And so that's a lot of reviewing resumes and it's a lot of preparing questions for the interviews, right? Yes. When we upload the resume into Pixie and ask her to analyze it and suggest good interview questions that are specific to the resume, saves lots of time, lots of yes. So that's another way that is kind of a daily use of her.

Denise:

Before we wrap up, what is a day in the life of Andrea look like?

Andrea:

Well, a day in the life of Andrea. Goodness super dynamic. Lots of pivoting around it can run, run any anywhere from analyzing a P&L to creating and executing like a new channel partner program or optimizing teams and restructuring them, working with customers, closing business you know, knowing operationally where our orders are, what do we need to do to make sure they get out the door. It's very, very diverse but it's a good place to be.

Denise:

And what brings you joy?

Andrea:

Oh, what brings me joy. I, I, I find great joy in bringing a positive impact to people and really to taking messy, uncomfortable business decisions and situations and really turning them around. And, and that's what I really, I really enjoy that. Me too. And Denise talking to you is also a joy

Denise:

<Laugh>

Andrea:

<Laugh>.

Denise:

Well, thank you so much. It doesn't take me long to figure out who'd be a great person to have a conversation with. So <laugh> certainly glad that you came to visit us and that we've, we've been able to do this and hopefully expand the relationship as we go forward.

Andrea:

I am, I'm sure we will.

QUOTES

When it was time to go to college, I didn't wanna be beholden to anybody. I wanted to make my own choices. I wanted to graduate debt-free. And that's not easy to do today. So I decided that I would work full-time, and then I would go to college full-time at a local college. And so that's what I did.

Although you have a goal, whatever that goal is, it's so important to not forget the people in your life. Because without them, what's the point of what we're doing?

Having that mindset of being curious and being able to take those calculated risks and being able to really explore, I think is what really makes us as contributors really unique. In order to grow and to expand, you have to have that way of thinking. And not everybody does.

Companies are made up of people, and people will always remember how you made them feel. So if you wanna be successful, you have to remember that it's how you work with people and what they take away from you, just as much as what you are taking away from them.

Information moves so quickly and the demands of business constantly change and increase. So if we can find a way to just make our work more efficient, especially when it's the cognitive things and I can save 10% of my time because now I've got this kind of assistant helping me. That's a really big win for me in how I work.

I find great joy in bringing a positive impact to people and really taking messy, uncomfortable business decisions and situations, and really turning them around. That's what I really enjoy.