

Simon Mainwaring:

Carbon is bad, right? We hear it every day in the headlines. But what if this very same problem was a marketplace opportunity in disguise? What if instead, we could not only reduce the carbon that goes into the air but use existing carbon to make everyday products we need and love in ways that are responsible to the planet and our future? This is the type of thinking we need to leverage the best and brightest in business and change the way we all show up in the world. Transforming what we make, how we make it, and how it impacts the planet in ways that unlock massive business opportunities and scalable solutions to today's challenges. This episode is a powerful and inspiring example of how to do just that. It'll change how you think about carbon, business, and our future. So let's dive in. From We First and Goal 17 Media, welcome to Lead With We. I'm Simon Mainwaring, and each week I talk with purposeful business and thought leaders about the revolutionary mindsets and methods you can use to build your bottom line and a better future for all of us.

Today I'm joined by Greg Constantine, the Co-Founder and CEO of Air Company. A technology, engineering, and design company that's developed a new process to turn carbon dioxide into value-added products. With a goal of demonstrating to the world that there's limitless potential through technology to transform our future. We'll discuss how to launch and scale a truly disruptive and purposeful company with multiple product lines and how to leverage that purpose to win investors, employees and customers and a brighter future. So Greg, welcome to Lead With We.

Greg Constantine:

Hey, thanks for having me. Appreciate it.

Simon Mainwaring:

Now, as listeners will notice there's something similar in our accents. Greg actually comes from Sydney, Australia and went to Sydney Uni. All of which I did as well, so I could not be more excited to have someone who hopefully people understand on the podcast.

Greg Constantine:

Or might not understand.

Simon Mainwaring:

Yeah, or might not understand right? Let me put it this way. Someone very kindly said the other day that it's really interesting that you immigrated to the states and you put your life and career here and you're doing something positive for the country and its future. I took that very much to heart, how did you end up here? How does Greg from Sydney end up in the states leading something really exciting like Air Company?

Greg Constantine:

Yeah. That's a really great question and again, thanks for having me. I think it all stems from your youth at the end of the day and just the sense of curiosity has always been a part of me, just extra curious around what else is out there. Right? Whether that's through exploration or through asking questions or just through trying to think differently. During my days at high school and university as well, I was always just extra curious around what else is out there outside of Australia as well and what could be beyond there. I've always been drawn towards other cultures, I've always been drawn towards the US. So I grew up really fascinated by music and studied a lot of music and arts as well during high school and

university. I'd always kind of taken that notion of whether that the saying goes kind of like if you can make it in New York, you can make it anywhere type thing.

Part of that sentiment has always just drew me to potentially exploring other places and then it was that stepping stone that led me eventually to the US and to start what we're doing now as well.

Simon Mainwaring:

I completely agree with what you say. I've always found that if you tell Aussie what they can't do, they double down and go hard. But also for me, America has always been that lighthouse on the hill. It was always this aspirational place that really drew people to it. But Air Company wasn't your first step in the States, I know you had sort of a career. What was that stepping stone before you got to pulling carbon out of the air and re-imagining our future?

Greg Constantine:

My first major job in the US was working at a company called Diageo. So it's one of the biggest beverage producers in the world and when I'd first moved over to the US I'd had some contacts that were working over there at that point in time and, yeah. Ended up taking a job there and working there for a few years to really go in and learn about big business, right? Why these really large organizations are so good at doing what they do, right? They're phenomenally well oiled machines that go out and just, year-on-year because of the process and the structure that they have in place are able to be so successful. So I'm always challenging myself to put myself in uncomfortable situations as that was one of them, right? How can I go and learn about an industry like this and then fortunately enough being there spearheaded some of the thinking of what we're doing today as well, and then it followed onto what we're doing at Air Company.

Simon Mainwaring:

It's one thing to do a linear kind of career where you go from stepping stone to stepping stone and there's a logical sequence, it's another to go the lateral career where you step sideways into the entrepreneurial world. What triggered that or what gave you the confidence to do it in the first place?

Greg Constantine:

Probably a little bit of ignorance at that point in time as well, right?

Simon Mainwaring:

Right.

Greg Constantine:

A 24, 25, 26 year old, wherever I was at that point in time and having that hunger, which might have just been a bit of ignorance. But no, I think it comes back to that curiosity. Right? Just always thinking around what else is out there and what else could I potentially do? I think one of the challenges when you're at a really large business like that is, it's often tough to innovate in short periods of time. Right? That's the reason why a lot of these businesses are so successful because of the machine that they are. But what that does is stunt innovation in some respects and I think that taking that understanding and then wanting to go at and really try to innovate. Because I think that's where you can really incite change, really spurred on what we're doing. It allowed me to make that kind of leap I guess, right? Leaving a really comfortable position in a tough challenging city nonetheless as well.

Simon Mainwaring:

I think a lot of us as entrepreneurs suffer that same sort of malady. We become entrepreneurs because of the speed of our ambition. We want to get ahead faster, therefore we might step away from a well established but maybe slightly slower moving machine. So I totally get it. So how did that sort of first conversation around Air Company take form? There's you, there's partner, obviously you're an expert in the marketing world and you've had experience with big business. But there's a whole other scientific component to this which is so compelling as well.

Greg Constantine:

A lot of learnings and a lot of time spent on it for sure, right? A lot of trust as well, right? I really trust in my business partner and co-founder Stafford who got his PhD from Yale in the field that we're working on right now. But the conversation at first was actually over a drink, we're in a bar together that we had met-

Simon Mainwaring:

Shocker, Australian in a bar.

Greg Constantine:

I know it sounds like a bad joke, right? An Australian and an American in a bar and what happens? That's how it started. We just became friends and I was just really enthralled by him and his whole world which I didn't know a ton about at the time and maybe vice versa as well. I think it's the commonality of that kind of opposites attract where two very different skill sets and background, two very curious individuals. All with this layer of purpose of really wanting to go out and try to do something and work on something that's meaningful that you can be proud of as well. The conversation kind of spurred from there, he was working on technologies and I was at Diagio thinking about trying to do something in a realm beyond there. As those conversations continued on, we decided that there's something here to be worked on.

Simon Mainwaring:

I want to ask about what Air Company does in a second, but just you mentioned there that you were both looking for something driven by purpose. Where did that come from? In you, in him? Because there are those who've just been living and breathing for example, sustainability forever and then there are those who come to it at a certain moment in their time. How did you know that was important and what did that feel like?

Greg Constantine:

I think a sense of purpose and to always work on things that were true to me has always been a part of me, right? Growing up, I was always doing... Or I had a really eclectic taste, right? I'm doing the arts and I'm doing music and I'm playing chess or I'm playing sport competitively as well, right? I'm in these different fields that don't necessarily always go together. So I think that curiosity and that kind of being comfortable with being purposeful with the things that I liked was always kind of in me. But going on this trip that we had gone on at this point in time and having been in New York for a number of years at this point in time really was some of the spearheading forward as well. Wow, I'm so inspired by him and by the work that these other folks that are doing that we met on this trip. It wasn't necessarily an

epiphany, but it was more of a okay. Wow, I really want to be spending my time working on things that are going to be purposeful to me and hopefully beneficial to others as well.

Because how else do you want to be spending your time at the end of the day?

Simon Mainwaring:

No, absolutely. As we point to Air Company, I know that you've got technology which is sort of heterogeneous catalysis which is easy to lose people quickly. When you were first starting the company, what was the promise you saw in the company and what was the ambition? Then explain to us what actually that process means.

Greg Constantine:

Yeah. The promise and the ambition and I guess the opportunity was if a technology like this can see the light of day. All right. If it can work and if we can get it to work and if we can show people that it can work, it has the power to change the world. It truly has the power to change the world and hopefully insight others to go out and work on technologies like this that could see the light of day. Unfortunately there are a plethora of technologies and academics that have worked on it and the rest that never see the light of day. Just because they don't know how to go and take an incredible idea and make it a reality or make it a commercial reality and part of the challenge of that is, is bringing people alongside that journey. So to really help not only spur the innovation but back the business as well.

Simon Mainwaring:

So I understand the process in theory, but what are the sources of your carbon? Where does it actually begin the life cycle of the product?

Greg Constantine:

Yeah, great question. So I did mention we're agnostic on the source, right? So we can take CO₂ from any source, our systems and our catalysts are robust enough to handle a variety of sources of CO₂. Currently, we get our carbon dioxide from traditional ethanol plants. So the ethanol that we make comes from the carbon dioxide of legacy methods of manufacture of ethanol. So corn farming and things like that, it's captured before it's emitted into the atmosphere and then we utilize that carbon dioxide.

Simon Mainwaring:

Just for those of us who don't have a scientific background, you get the ethanol from these sources of which there are many. How do you then turn that into a perfume or a vodka or a jet fuel?

Greg Constantine:

Yeah. So we take those carbon emissions of traditional ethanol plants and we combine it with hydrogen and we turn it into the ethanol that we make. A bottle of vodka is just ethanol and water, that's what a bottle of vodka is. It's 40% ethanol and 60% water. Ethanol also has the ability to be a fuel, but what also comes out of our production systems is kerosene's which can be aviation fuel as well. So what we have the ability to do is distill out the variety of alcohols and other liquids from the water and utilize it in a variety of ways and products at the end of the day.

Simon Mainwaring:

So just unpack the technology for it because it really is about pulling that carbon out of the air in a process that sort of mimics... What? Photosynthesis from plants.

Greg Constantine:

Yeah, exactly. Yeah. So artificial photosynthesis, so essentially doing what a tree does just faster and more efficiently. So removing carbon dioxide and putting out oxygen. So the premise of our technology is quite similar to that, right? We take carbon dioxide from any source, right? We're agnostic on the source of CO₂ and when we combine that carbon dioxide with hydrogen and our systems are all run on renewable electricity. So similar to a tree, taking the sun's energy produces a mixture of alcohols and water and the byproduct that we vent into the atmosphere is oxygen. So similar to a tree as well. The alcohols and the fuels essentially that we create we then apply to an array of different industries. The position that we took as a business early on was when you're working on innovative technologies like this, cost is always going to be a gating factor. Right? As you progress over time, you get economies of scale. But in the early days when your cost of produce is relatively high and the volumes that you're producing are relatively low.

How can we put out products that can substantiate your cost strategy and your structure as well, right? We went out and set out to create some consumer products off the back of the technology as a first stepping stone towards industrial scale.

Simon Mainwaring:

I was going to ask you about that because if you go to Air Company's website you'll see how elevated the brand is. It has this very sort of elevated aesthetic, which is alluring in its own right. But also it speaks to those products you were making, vodka and perfume and so on. So it's really interesting you say that the sort of cost of production, warranted products that could sort of support a premium price to then allow you to grow. I want to back up one little step, which is its one thing to have potentially disruptive or transformative technology. It's another to have a couple of guys who want to make it work, it's another to get it funded and make it real to make it commercial as you say. What did that process look like so you could start making the vodkas, the perfumes?

Greg Constantine:

A lot of long days, a lot of long nights, a lot of literal blood, sweat and tears throughout it. It was a really, and still is really, really challenging process right? When you're going out to try to create something. When you're trying to do things that have not necessarily been done before in the way that you and your business are trying to do them. You're just two guys that are out there kind of trying to deliver on a potential promise that something may work, it's very, very challenging. So yeah, a lot of just persistence and grit and hard work and trust in one another, in our team as well. What we're working on we believe in and we believe that it's going to be successful at the end of the day. So I would just say that conceptually very tricky and very tough. However, when you have that kind of persistence at an early stage of a company like that. You really need all of those things that you mentioned to be able to line up, right?

Whether it's the funding or whether it's the kind of market for it or the technology or the opportunity that you're trying to create. So definitely a sum of all parts, what I would say is that more often than not they don't want to work out together and we're definitely a culprit to that.

Simon Mainwaring:

Yeah. I think that's the power of having a purpose that drives you because what else is going to sustain you through all of that? I mean it is so disheartening, I know we first. I've thought about giving up so many times despite how passionately committed I am, because some days it's just so damn hard. Did you do friends and family? Did you self fund? Did you go out to PE and VC firms? Because it's got to be pretty cost intensive to build out this technology particularly at scale.

Greg Constantine:

A bit of a mixture of it all, plus everything right? We did everything on the side of everything from grant funding, everything as much non-dilutive as possible. The beauty of our business is that we also sell products, so we bring in revenue, albeit low. It is revenue that can help substantiate the business and then we've raised a couple subsequent rounds of funding since then as well to help grow the business along the way. So I would say it's definitely a mixture of all of the above.

Simon Mainwaring:

This is almost comical in my mind, it's like two guys, you open the closet door in one of your bedrooms and there's these massive infrastructure sort of technology in the background in this sort of collapsed deep space. What do you do? Do you rent a facility? You start building up the technology? Do you lease existing technology and upgrade it?

Greg Constantine:

That's pretty much exactly what it was, it's very unsexy stuff. So yeah, we had a rented lab at one point and we also had... Obviously working in your apartments and the rest and then we rented what was an old nightclub in Bushwick in Brooklyn in a very, very, very rundown area that staff and I painted the front and the inside and worked on as well. That's where we deployed our first piece of pilot technology, I guess that is now no longer a super rundown slot in Bushwick. But at the time it was exactly that, it was scraping together whatever we could to try to see if we could get something to work and to have something physical to show people like hey, this is real. We've built it, it's working, come and see it and that's when it becomes more of a reality for people as well and not just a concept.

Simon Mainwaring:

What was that timeline from that first drink in the bar, going hey I think there might be something here through to the point where you got a prototype of a product?

Greg Constantine:

It was about two years.

Simon Mainwaring:

That's pretty quick.

Greg Constantine:

Yeah, light speed for our industry for sure. From our perspective we thought we were moving it at a really violently quick pace but my own internal projection was like this is not fast enough. That's what's always kind of driving us forward. I think while we've had a moderate level of success in the sense of we're able to get things done relatively quickly compared to a lot of other folks in the industry or in other industries as well.

Simon Mainwaring:

So the first product you took to market, tell us what that was and also was it a function of the alcohols that you were pulling out of the air that made these products so successful? Or were you consciously trying to create premium products that would win awards to validate proof of concept?

Greg Constantine:

Yeah, a bit of it all. So we knew that the goal was to make these alcohols and these fuels, right? We knew that ethanol was coming out of our process and if we back up to the point I'd made earlier. Which was knowing that we're producing relatively small volumes and that it's going to be really cost prohibitive at that point in time. We said what are the industries that we can go into where the volumes needed are relatively low, but the price per liter is relatively high and they're the beverage industries and the fragrance industry. So yeah, two years in we launched AIR Vodka which was the first ever carbon negative alcohol beverage made from carbon dioxide. Because it is a higher price point product, but almost more importantly it gives people a reason to believe that you have proof of technology. Right? It's this product that you can go and put in front of people that they can touch and hold and drink and have it be approved from a regulatory perspective as well, which is real proof of technology.

What that does is it allows you and I and everyone that's going into a liquor store or a bar to understand that this technology is real, but also this product is real. Design that you mentioned earlier is a really core principle to what we do because not only are we trying to get a product out into people's hands so it can be a beacon for our technology. But in order for them to want to purchase it or to be a part of it has to look and feel great and obviously it has to taste great and it has to be better than all their [inaudible 00:18:12]. It has to be the best product as a standalone irrespective of how it's made. Because that's what will then attract people to the product as well and that's what we kind of built that product and our mindset around for it.

Simon Mainwaring:

Yeah, I mean purpose is not a silver bullet. If you don't have a competitive, if not best in class product you're never going to penetrate the market. There's absolutely and... So I want to get sort of rubber hits the road for a second which is okay, in a vacuum it could be seen as a very high class experiment to make a premium product. You've then got to move product, you've got to sell it into bars and restaurants and so on and New York and other markets. We're still not quite at the day yet where sustainability or ESGs commitments of companies really are winning purchasing decisions. We're close, but especially in the last couple of years I think it wasn't the silver bullet that just made everything fall into place. So how did you make people care and how did you frame the narrative of being a carbon positive product in a way that the people who now buy it actually gave a damn?

Greg Constantine:

Great question, it has been and it is still a massive challenge. When we first put the product out, it was really actually just centered around quality right? This is what's going to drive customer sentiment several years ago. Where now, especially in the last 24, 12 months, the conversation has shifted drastically towards the impact of the product which is fantastic to see. Right? It's like people that are really interested in purchasing because of the way in which it's made, because of the purpose, because of what it stands for. The approach that we took was that if we can get this product in the hands of the best bar owners and restaurateurs in the most influential areas around the country. That's going to be the best advocacy marketing that we can go for because we don't have the budget to go out and spend on anything. But how are we going to influence people? The best way to influence people is through

people that they trust and that's these incredible bars and restaurants and retailers that took on the product because they're advocates for it.

Because we had what we were calling the triple threat for the product, which was the purpose of the product. What it stands for, how it's made, the design of the product, it looks like nothing in the category at that point in time. Then lastly the taste, right? With an unparalleled taste because of the production process. It's so pure because of the way in which it's made because we're not being made from sugars and fermentation and that entire process is ultrapure. So when you've got this kind of triple threat, you've got these bar owners and restaurateur that want something to be excited about it or want something to be able to talk about to their patrons and then that will disseminate the message. So that was one of the kind of core strategies we had from a vodka perspective on how to educate people and get product out.

Simon Mainwaring:

I got to say your brave because there's probably no category more crowded and arguably full of meaningful claims than triple distilled vodkas. All of which are very hard to discern the difference in taste and so on and there's such a suspicion around greenwashing or cold washing or work washing and all these things these days. How did you convince them of the integrity of what you're doing without losing them in some heady conversation?

Greg Constantine:

One of the ways we did it which is a reason I kind of brought it up earlier was, "Hey, we're in Bushwick why don't you come and see what we do firsthand? Why don't you come and take a look and come be a part of a physical verse." Right? That was really [inaudible 00:21:27] like, why don't you really come and take a look? But then the other piece was separate to the product we had a lot of really great technological partners as well, right? We were a finalist in the Carbon XPRIZE, we're doing work with NASA and a bunch of other pieces of work that really validated technology as well. Then, when you've got a product that's so different compared to the partners that you have. It creates a really nice almost positive tension between those two things that really gets people eager to want to understand more and then extend time digging into it and understanding more.

Simon Mainwaring:

Obviously you could have stayed in the alcohol category forever because there's so many applications and you could have sort of stepped them out over time different sort of alcohol equivalence. But you then moved into the perfume category because you just like competitive categories, clearly. I mean there's a bit of perfume out in the world there mate I'm just saying. Why perfume and why another consumer facing product and how did you go about launching that? Because I mean there are so many behemoths in that space.

Greg Constantine:

Yeah. A lot of it comes stemmed from trying to tackle the toughest problems, right? The harder, the better and when everyone says that the beverage industry will never be innovated from a liquid point of view. Everyone says the beauty industry will never be innovated from a liquid point of view. To be such a point of difference and to come in with a total different viewpoint is definitely met with incredible amount of challenges, right? Criticism and skepticism and the rest. But then the way we look at it is that there's a lot of positivity that you get from it as well, right? From people that want to see change in those industries but are looking for something to be able to help incite that change.

Simon Mainwaring:

Right.

Greg Constantine:

So we decided to go into the beauty category for a similar business reason, right? Really low volumes and when your cost to produce is high, similar to a bottle of fragrance. But more so that we can show these industries that hey if a small 50, 60, 70 person company from New York can go out and innovate in a space like this, you guys should be able to do so as well. Either we're happy to work with you in it or we're happy to show you the way to try to do it as well and that's what it's all been. Because it all comes back to the mission which is, how can we help curb climate change? Let's go into these industries to help try to do so.

Simon Mainwaring:

There's a couple of really powerful points that I'd love listeners to take away. One is that when there's an indentured or kind of well-established industry that seems just so resistant to change, that's actually an opportunity in disguise. Because it's ripe for disruption, so rather than actually steering you away it should actually encourage you. I also love the idea that everything you do is a pilot program not just for yourself, but a permission slip for others to disrupt industries as well. I mean it's such a reframe of how we think about business because we look at it through our own lens, which is hey how am I going to stand up a company? How am I going to make money? What am I'm going to do with this product? So on and so on. As opposed to how can what I do really move an industry forward or shake up how people think? Is that fair?

Greg Constantine:

Yeah, for sure. Don't get me wrong, it's tough and it's challenging and more often than not you're told that it's not going to happen and it's not going to work. But if you have that kind of mindset going in that you want to be a beacon for change and you have that purpose that's driving you towards it. Irrespective of the kind of hurdles that get in your way, you'll just keep working towards that and those hurdles would just be learnings along the way. You won't even think of them as values, you'll just think of them as cool I learned something new here but I'm still on this path over here that's going to hopefully make a change.

Simon Mainwaring:

Yeah, exactly. You touched on your mission there, can you speak to the mission specifically and the ambition of the company in terms of climate change?

Greg Constantine:

It's a very simple one, it's everything that we do is just gear towards helping mitigate climate change. Everything we do as a business and it starts with our technology, right? How can we see our technology applied to every industry vertical that it's applicable to in as many ways as possible? Because that means we're utilizing as much CO2 as possible and we're storing it or turning it into products and that's what our business stands for, it's what we work towards. We have definitely very specific goals within there and it's very nuanced throughout there as well. We have a variety of business plans that fit within that, that ladder up to that end goal. But the reason why we've kind of always been leading towards that is

we know the opportunity that there is for the planet and for the business. Right? And how we're able to get there.

Simon Mainwaring:

Then how do you build the team for that? Because each industry vertical from alcohol to perfume to other products, they all need subject matter experts in some way.

Greg Constantine:

Yeah, it's tricky. It's definitely very tricky, right? A really strong position that we've taken is that we're going to go out and we're going to find the best talent for the very niche and nuanced work that we're doing on catalysis, on engineering, on R&D, on operations for sure. But when we're going into these archaic industries, we more often than not grab folks not from those industries to come and work on it. More often than not, right? To come and work on them because they're going to bring a different viewpoint and a different set of opinions to it. Because if you bring folks that are coming from an industry that they're going to have the same mindset as what that industry does. When you're trying to innovate in those industries you want someone to be able to think differently coming into it, so it's a balancing act.

Simon Mainwaring:

I want to double down on that point. I was lucky enough to work on the Nike brand up at their ad agency, Wieden+Kennedy and not long ago I was up at the agency and the founders David Kennedy and Dan Wieden. One of the things they revealed to me was their great strength was curators of people. What they do on the Nike brand is bring in people from outside a sport or outside the US to work on that sport and bring fresh eyes and fresh lens to it. So if you're an entrepreneur or you're in the C-suite and you're leading a team, think about who you can bring in outside into it to bring fresh ideas and fresh blood and so on. If that wasn't enough sort of alcohol and perfume, you then pivoted B2B to jet fuel. So tell us about how that came about and it seems to be moving at a pretty accelerated pace.

Greg Constantine:

Definitely moving at an accelerated pace for sure. One thing that maybe it's a personal trade of mine and definitely one of the businesses, we spend a lot of time working on things that we don't put it out until it's ready. So it's something that we've been working on for a long time and it's actually, if you look at our very first pitch decks that went out. Fuel and aviation fuel is the line item at the bottom of it, which is like this is where we want to get too eventually. Right? It's just we've had incredible tailwinds from technology, from legislation. From the world moving at a pace that we're able to keep up with from a sustainability and ESG push that's allowing us to get there sooner, especially from the work that we're doing. But it's always been a part of the plan because if we think around how can we make the most amount of impact? Aviation is a sector that's always been deemed as one of the hardest to decarbonize.

Simon Mainwaring:

Right.

Greg Constantine:

It counts for two to 3% of global CO2 emissions on an annual basis, it sounds small but that is billions of tons of CO2 per year. Like massive amounts and it's never really thought of as being able to innovate in from a fuel perspective, so when you have an opportunity to create a fuel for a plane from carbon dioxide. That could potentially revolutionize that industry and bring us decades forward in terms of the thinking on how planes can be more sustainable and the future of flying, it's what we want to spend our time working on.

Simon Mainwaring:

So it's called AIRMADE your fuel, and how have the airlines reacted to it? Has anybody sort of bitten in terms of using the fuel and what's the timeline for the first sort of carbon-neutral flight?

Greg Constantine:

So about six to 12 months ago we won a contract from the United States Air Force and part of that contract was to supply them with some of our fuel, which we successfully did. At the end of the summer of last year we actually flew down to one of their partner bases down there and we flew the first ever unmanned plane that flew on our AIRMADE sustainable aviation fuel. So it was fuel made from carbon dioxide.

Simon Mainwaring:

That's amazing.

Greg Constantine:

Yeah, it was an incredible feat. It was definitely a really exciting day for us all as well.

Simon Mainwaring:

That is proof of concept. You're in the plane that's running on your fuel, this is stuff that will [inaudible 00:29:36].

Greg Constantine:

[inaudible 00:29:36]. Yeah. Unmanned. There was-

Simon Mainwaring:

Unmanned. There we go, unmanned. Sorry. [inaudible 00:29:41].

Greg Constantine:

But hopefully soon and yeah, to kind of coincide with that. We went out and worked on some potential partnerships and deals with a number of different airlines. Everyone from JetBlue to Virgin Atlantic to a few others who are going to be procuring our fuel inside this decade essentially. So the business is really focused on again really working on technology and ramping up production in order to meet the demand of some of these customers that are out there.

Simon Mainwaring:

So how do you then keep expanding the company this way? 'Cause I'm fascinated by the practicalities, the operational side of it. You've stood up the alcohol vertical, you've stood up the perfume vertical.

Now you've got jet fuel, which is a very different kind of animal and you staff up for each of those and they take on a life of their own and then you keep moving forward. Is that how it works?

Greg Constantine:

Yeah, exactly how it works. Yep, exactly. We started with those consumer industries where we really needed these literal proof of concepts, right? Something that someone could really actually understand where now, because we're through a lot of those stage and they're revenue generators as well. We're really focused on big industrial industries that we have the ability to really incite massive change at scale that can really materially affect from a positive perspective the makeup of the planet.

Simon Mainwaring:

When you're pitching your products and the promise of those products, what do you prioritize? Because every single entrepreneur out there or every global enterprise that wants to make a difference, they've got to sell it in either to their CFO or to their investors and so on. Do you lead with the purpose and then point to the business case for executing against that purpose? Or do you need to necessarily lead with the cost efficiency of the products you're making and the premium quality of it and you're both on the purpose at the end as a sort of bonus?

Greg Constantine:

Yeah, sorry. That's a really great question. For us it's been variable depending on the staging of the business.

Simon Mainwaring:

Right.

Greg Constantine:

The stage of the business that we're at now and it's always been technology, right? We've always really pushed purpose and pushed technology because that's been our product, is our technology. We have sub products that come out of the technology for sure. But we're at the stage now where we're going out and we're really building large scale factories, which is really dependent on the end of the day cost structure, the output, the technology as a whole. Then you have these sub-products that come out of there that are revenue drivers. But we really think about products as selling our research and development, right? We're monetizing our R&D on a pathway towards true scale.

Simon Mainwaring:

At this point it's getting pretty capital intensive. So you've got different type of partners or is it collaborative in nature and you work with existing infrastructure or R&D organizations and you sort of bolt on? How does it work?

Greg Constantine:

Yeah, it's definitely a mixture. When you get into the sizes that we're getting now, the spend on CapEx, on capital equipment is large. Right? So you're always looking for the most efficient way to get access to that capital. Fortunately in the US and outside the US as well, there's a lot of programs that are in place. The innovative technologies that are heavy CapEx spends as well, so yeah. We've got an incredible team that we work on with that on the best structures in order to do so at the scale that we're at now, right?

If you look back a few years ago it's whatever we can do to get this thing off the ground, we'll do whatever it takes. Right?

Simon Mainwaring:

A bake sale, make some lamington's mate. All of this turns on your ability to track that talent, you said outside industries but still best in class people. Do you find the purpose is instrumental in pulling them away from wherever they are? Tell us about that process because really you live or die in the strength of your team.

Greg Constantine:

Purpose is one of the most essential things to us and to our business, if not the most essential and for folks that are coming over to either work with us, that are wanting to work with us or that we're wanting to work with us as well. Right? It's the ability to work on something that can potentially shape an industry, can potentially shape the planet or if all else fails can just inspire someone else to go out and try so. Because when we started the business, we just assumed we were going to fail. It was like we should try it, we'll probably fail right? Everyone's saying we're going to fail, like-

Simon Mainwaring:

That Greg, he's crazy. He's going to fail, it's a done deal.

Greg Constantine:

Pretty much and you need to... We still have that in us now as well, right? You need that, it helps drive you right? You want to push yourself under the assumption that hey we don't want to fail, we don't want this just not to work. But you always thinking that you are and to be able to come and work on things like that is exciting for us and hopefully exciting for others as well. Yeah. The ability to inspire others is one that's really kind of big for us.

Simon Mainwaring:

I love it, and I feel the same way. Your purpose gives you the passion, but the anxiety around the entrepreneurial journey is the propulsion that keeps you going. It gets you out there. So when you look at the different product categories that you move into, all the verticals. What drives it? Is it the technology and its applications? Is it customers like B2B customers and what they're asking for? Is it consumers and these legacy industries and you just see them as big opportunities for disruption? What drives your decisions as to where you go next?

Greg Constantine:

Industries that are known to be the toughest to decarbonize, so the harder, the better. Right? We spend some time in the rocketry space and we have some work with NASA, only no one wants to try to do that because the likelihood of failure is really, really high. So their industries that we're like all right, well we have to go into that industry, we need to try these industries. So that that's one. In order to have a successful business you need a customer, you need to have a customer. So we do a lot of obviously strategic thinking and data analysis as well to understand look, what way is the world going as well? Where are we going to have the ability to not only insight change and go into industries that are known that are going to be tough? But how are we going to stand up a successful business as well because we

have to because we're running a business as well? In order for technology to be successful, it needs customers, it needs revenue, it needs funding and it needs all of those pieces to come together.

So there's definitely a plethora of analysis or ways that we analyse data in order to go into it to help come up with some of those industries. Sometimes it is just out of timing and need, right? During the pandemic we shifted all of our production to be hand sanitizer. Because we said hey, the world needs this right now. It is far more important that the world or the New York or the fire department or the police department gets some of this from us than our business running right now and so we just shift in order to do so. So there's some of that as well, which is just a decision being made at a business level.

Simon Mainwaring:

Yeah. I think that triage capacity is something that's going to be a constant in business moving forward and how do you make sure that you stand out? Because there's a growing number of carbon capture companies out there, there's Air Protein that pulls carbon from the air and uses cultures to create protein analogs. How do you make sure that as we start to reframe carbon, not as the enemy but as an opportunity how do you stay top of mind?

Greg Constantine:

We don't really try to all that much to be honest, it kind of just happens inherently because we have some really great products. I think that the more companies that are out there top of mind, the better. Right? The fact that we're one of only a handful companies producing sustainable aviation fuel, that's a problem in and of itself. There needs to be more, I'm hopeful that just by doing great work and that focusing on real results and focusing on your operation and on your technology allows you to stay out. But when you're creating consumer products as well, you just have to have the highest quality product at the end of the day. Right? When you're putting out a product into the world, if you just focus on it just being the best most possible product and you really focus on your customer. At the end of the day, that'll allow your business to be successful or at least it'll be a part of allowing your business to be successful as well. Yeah. Hopefully the rest of it all comes together and some of it is just noise as well.

Simon Mainwaring:

Yeah. The whole mentality being collaborative and giving it away and inspiring others to do, is something I deeply believed in all my time. Then, looking ahead you want to take the impact that you're generating to scale not only at a company level but at an industry-wide level. Because the timelines we're working against to contracting, we've got to really address the amount of carbon that's already in the air but the carbon we're emitting much more quickly. So what's your plan for scale? Is it sort of licensing out your IP, is it sort of doing an open IP approach? Is it just setting an example through what you've already built already that others can model and build on?

Greg Constantine:

Yeah. We're really focusing on building our next plant and potentially our next two plants, like facilities ourselves. So that we can really improve out the operation of technology at scale and then the goal for our business is to go and work with as many partners as possible to allow them access to our technology. That can eventuate in a variety of ways, whether it's licensing and otherwise.

Simon Mainwaring:

It's one thing to be a very meaningful player in a crowded industry across these different product verticals, it's another to kind of force lasting or sustained change. That requires policy and advocacy work and really making such a strong business case that others leave destructive or extractive practices behind. Are you doing anything on that front?

Greg Constantine:

We are behind the scenes for sure, yeah. We've got a small team internally that focuses on it as well, all right? How do we go out and help push legislation on the hill and push advocacy and allow things to incite change as well. Fortunately enough, we're seeing it across our whole industry as well right? When the Inflation Reduction Act came out last year. There were huge tailwinds on hydrogen and huge tailwinds in other areas that materially affect businesses like ours and allow us to eventually be competitive from a cost perspective as well. But, yeah that starts with having a voice. Not only having a voice inside your organization but having a voice with those that are making decisions at a legislative level as well.

Simon Mainwaring:

I read a credit Swiss report about the Inflation Reduction Act and it really said there was a shift from a mindset where companies and industries are mitigating risk to the danger now is missing out on the scale of the opportunity that's in front of you. For those who are listening, give us a sense of just how big you see the opportunity for companies that take on issues like carbon and otherwise and really solve for them?

Greg Constantine:

The opportunity is endless and that's the way that we view it, right? It's an endless opportunity because your feed stock is unlimited, right? At least for the unforeseeable future, right? If we're able to utilize or to sequester or to remove all the carbon dioxide out there, then that's a massive win right? It's a huge win and let's get to those challenges there on after and when we're there as well. So I think that the opportunity's a massive one and it's one that we need to be mindful of from a time perspective as well, right? We need to get ahead of it and that starts now.

Simon Mainwaring:

What's the biggest obstacles right now? If you could wave a wand, that magic Australian wand that we both keep in our back pocket. What would you want to change?

Greg Constantine:

Great question. Look, I'd love to see more companies cropping up in the space and I'd love to see a continual focus on legislative pushes towards what we are doing. Right? That starts and ends with companies for sure being a part of it. But big business needs to really come and support these initiatives as well, right? But the challenge for a business like ours is not getting to scale, but it's cost at the end of the day. Right? For us to be really competitive at scale, it's cost and when you're fighting the cost structures and the subsidy structures of legacy industries, of corn industries. When you're coming up against that and you're not seeing as much of it or at all in our industries, it becomes really, really tricky. Fortunately enough IRAs is a step in the right direction but we really, really need to see more of it because that's materially going to affect businesses like ours and really insight change.

Simon Mainwaring:

Yeah. I mean lobbying and subsidies actually disincentivize change in so many ways that regular folk really don't see what's going on.

Greg Constantine:

Right.

Simon Mainwaring:

If you were to sort of cast your eye 10 years down the road and sort of share with us your vision for what consumer products and industries like jet fuel are going to look like of necessity. What's your vision for 10 years down the track?

Greg Constantine:

We as individuals and as business owners and as entrepreneurs and as organizations need to rethink everything that we have been built upon from the start to the end. Right? When I talk about the manufacturing process, right? We need to go back and really understand why something was created the way in which it was created and how it's had either a positive or a negative effect on the planet or on humanity. So the systems that have been built and the structures and the foundations that have been put in place need to be rethought, right? We're culprits of just trying to fix what's in front of us right now, but not looking at the reasons why those things are in front of us right now. So I think over the next 10 years, over the next two decades. Part of that time should really be spent on rethinking the foundation that was put in place. It may be harder in the short term to get through whatever that initial next step is, but it's going to be more fruitful on the other side and more beneficial to all of us.

So I would just kind of preface with that, what I'm really excited about is areas and things that we're working on and the industry that we're in. Right? It's how you're taking what's deemed as a problem and turning it into a solution, right?

Simon Mainwaring:

Right.

Greg Constantine:

Carbon, which has always been deemed as a problem. Which is a massive problem is now starting to be thought of as okay, this can play a solution in our future. This can be a part of our future. We can turn this negative into a positive and utilize something that was always deemed as something so bad, which it is to the planet. But how do we turn that into a positive and make it useful to us? How do we do that across the board? How do we rethink all the variety of bits and pieces that are out there essentially to be able to utilize it?

Simon Mainwaring:

Any advice for the business leaders or entrepreneurs listening because you've sort of taken on really tough industries with very short timelines and huge upsides. So you kind of run the miles, any advice you'd give us when you look back over the journey of Air Company?

Greg Constantine:

Yeah, for sure. I would say try to be mindful and supportive of the ideas that feel or are deemed as crazy because it's those ideas that are deemed as crazy that sometimes see the light of day and help continue

to push humanity forward. But for those that are working on things, I would just say just be persistent right? Hard work is one thing and smart work is another thing as well and, yeah. The ability to just be persistent, especially if you're going into industries that are either archaic or deemed as impossible to innovate in. That's great, now go into those industries and try to be a point of difference. You might fail along the way, or you might fail period but at least you know you've tried to incite change and maybe you inspired someone else to be able to do so as well.

Simon Mainwaring:

Well Greg I got to say, it makes me proud to see another Aussie sort of kicking butt as they say. I just want to say hats off for the breadth of ambition over all these years, just going big for our future. So thanks for the insights and for the time today.

Greg Constantine:

Yeah, thanks Simon. Appreciate it.

Simon Mainwaring:

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