



A CEO Explains How to Be Disruptive

This transcript was lightly edited for clarity.

Chris: Mike Collins is the founder, owner, president and CEO of CEM Corp, the leading provider of microwave solutions for the laboratory and life sciences marketplace. Mike, Thanks for taking the time to talk to me today.

Mike: Chris, Great. Pleasure. And I look forward to the interview.

Chris: So we're going to talk about the evolution of your company and the things that have made CEM successful. You and I spoke a little bit briefly before and so there are a lot of lessons about how you do things differently, how that affects marketing, R&D, and even employee motivation and retention. So first of all, how did you get started?

Mike: Well, first of all, I got a PhD in chemistry, so I had a technical background and then I went to work for a large multinational chemical company where I spent time in R&D with them and then also in sales and marketing. So I had some pretty good training and a pretty good background, but I always knew I wanted to start my own company. I always had that in my DNA. And fortunately, I met two people at this larger company to engineers and was able to convince them to take off with me and start our own company. We actually started in a small garage that one of them owned because at that time I didn't have... I was in an apartment and didn't have a garage and so that's how we got started. And it was based on an initial product idea I had and we kind of worked on it for a while on a moonlighting basis. And then again, I was able to convince them to go full time into the company and that's where we started.

Chris: Wow. Yeah. A lot of great companies start in a garage I guess is because landlords aren't too keen about microwave chemistry going on upstairs.

- Mike: Very true. And probably a tough thing. They were a little bit older than I was and I had to, I believed in, I knew what I wanted to do, but I had to convince them to leave a safe job at a big company and do this. But I did. And once we got started, I think we all felt like it was a good decision.
- Chris: We could make a whole podcast out of that, how you get two buddies to leave their job for your idea. So disruption is an overused term, but you've managed to create a lot of solutions that are not incremental improvements. Let's talk about how you do that.
- Mike: I think part of it is, it's sort of in my dna because if you're really going to disrupt something, you've got to do something that people don't think is possible because I spend a lot of time with customers. And when we got our first product out, I would be spending time with customers and understanding what they were doing. But the ideas you're going to get from them are going to be more incremental. They're going to be, you know, asking you to do things that'll make their job a little bit easier. But to disrupt, you've got to step back and really look at what they're doing and think about how could it be done totally differently or some major breakthrough in what they're doing. And so that's where, where I would come from and then I would come back and talk to our engineers and scientists and I knew what the initial response was going to be and it was always the same in that "that's impossible that, that can't be done."
- Mike: And that's why it was never done before. And what you then do is challenge your people, your engineers and all of a sudden they start thinking about it, it's amazing how in three or four weeks or a month, they'll come back all of a sudden with an idea on how it can be done and all of a sudden they start to believe that maybe it is possible and that's where it starts. And then if you're successful, it will then lead to something that truly is disruptive. That it's beyond what other people had had really thought about. It's not an easy process because sometimes it will be impossible, so you'll come back with something that really isn't, but it really has to start by thinking out of the box and proposing something that most people are gonna think is totally impossible. And then you get people working on it and find a way to make it happen.
- Chris: Yeah. I'm almost laughing because on LinkedIn this morning I saw... it looks like a New Yorker cartoon where somebody says something like, "oh, that's a really innovative idea. Unfortunately we're not gonna fund it because no one's ever done it before."
- Mike: Very true. One thing I'd add there that, as we got larger too, we had a lot of this debate, how do you come up with new product ideas and the traditional way you do it is you do these focus groups. You get customers together and ask them questions and set up focus groups. And we tried that for awhile.

And in general, none of that was really successful because it's... I kind of believe the Steve Jobs approach. Your customers are not going to give you the disruptive ideas that you should be working on because if they already knew about it, they'd already have those products. So you've really got to go beyond just going out and talking to your customers and thinking that's where your new products will come from. You've got to get to know what they're doing almost better than they do. And then you step back and have a full vision of how you could bring them something that they've never imagined. And that's where you do the really exciting things and the really disruptive things. Nobody ever told Steve Jobs that they wanted an iPhone, but he was able to, with his vision, was able to conceive of something like that, that they had not thought about.

Chris: Yeah, let's, let's talk about that a little bit more because I find it fascinating. And of course, every company I've been at, you know, they talk about voice of customer and what do they really want and that's a step above making things just because we can. But what's the bridge between you listening to your customers who are looking at their next problem so their limited vision is "this is the thing I need right now." How do you take and then go back and think like what would really change how they do things? Can you describe what you imagine in the future that they don't see?

Mike: I think part of that is you've got to spend a lot of time with many different customers because if you go and talk to a few customers, a few of what you would consider to be key customers. You'll get input from them, but it's only their perspective and it tends to be somewhat limited. What I found is by getting out and talking to enough different people, you really start to see things that they're not seeing because they're in their own company. They're doing their own thing. If you talk to five or six different people of the major players in that market, they'll have different perspectives and all of a sudden you can get a broader perspective at a higher level than any of them have. And then the light bulbs start to go on and you start to think out of the box because you're not constrained to do what they're doing.

Mike: It could, it could be done very differently. And that's, that's what I've found is successful. The other thing you need, and I guess I'm fortunate to have it, is you need people that are going to do that, need to have enough technical background to really get in pretty deep into what the customers are doing, but then also have a marketing and a selling perspective on things and a vision. And those are the two things you've got to have. And it's usually a single person that's involved in this. So you've got to have a person that's got those two things and can put them together. And that's, that's not normally the case. Normally you have strong technical people. They really aren't visionaries or you have strong marketing and selling people that don't have enough technical depth to really get deep enough into what the customer's doing.

Chris: When you're talking to multiple customers and getting all their perspectives, is it sometimes bringing two ideas together, like, oh, the thing that would fix that guy's problem and that woman's problem helps you see something different.

Mike: Yeah. Actually, it can very often be that where there's different things that already exist and you put them together in a unique way that nobody's thought about before. And some of that is you're dealing with different markets or different customers and so you'll see things they weren't, that they're not aware of in another area. And that can be a lot of what disruptive technology is. Again, I go back to Steve Jobs with the iPhone. There's nothing in the iPhone, the original one that didn't already exist, but they put it together in a unique way. And that's where some of your most disruptive new products, come from.

Chris: Talk a little bit about deciding which of those things you should work on at all because certainly you must get ideas that you go, well that either won't sell or the market's too small or it's too risky. How do you decide what you're going to do?

Mike: Yeah, that's a really good question. And an important part of that is again, spending time out in the market so you have a good feel for the market, but it is one of the big challenges of a company that's really innovative. If you're not careful, first of all, you'll tend to work on too many things. You'll get a whole bunch of different ideas and you get to spread too thin and nothing really comes out of it. But secondly, and that's where, I found out that I spend time talking to our salespeople because they are with customers and some of them have some good inputs, but a lot of times their input will be a one off sales opportunity and it won't have the broad perspective that's really going to create a major product opportunity for the company.

Mike: So I guess a part of that is you've got to dig deep enough into the particular markets you're going to be going after and make sure that it is big enough and then if it is, then really focus on that and only only work on a few things at a time and really go after them. Put all your resources into the two or three bets you're gonna make. But on the other hand, if, if they're not successful, then be willing to change course, if it turns out that that's not the right thing to be working on.

Chris: Alright. Let's dig into a little, a specific example. Sample prep thing is a big thing for you all and it's not the sexiest part of the analytical workflow like mass spectrometry or any other technology you want to think about, but it is a bottleneck. What's been your approach there?

Mike: Yeah, that's interesting. Because we, you know, we started out with a microwave and then it got us into sample prep for the elemental analysis and

the interesting thing to me was I'd go into laboratories and talk to people, lab managers and talk to them about "what are your problems"? And all of them want to get faster turnaround time on their testing whether it's for production control or for customers they're providing a service for. And so when I dig a little deeper and well, where are the bottlenecks along the way? Almost universally, they will say sample prep. The second thing I noticed when I went into all these laboratories was the way they were doing sample prep was amazing in that it was based on 50 year old technology or even older, a couple of the standard techniques, they're still used in laboratories.

Mike: One of them is 120 years old. They've been doing the same thing for 120 years. And this was a little shocking to me when I would look at the sophistication of the instruments that are being used, but those can't do their job until the sample is in a form that it can go into that instrument and there's 120 year old technology being used to get the sample ready. And it can take hours to get it ready. So it was sort of obvious to me that there's something wrong here or there's an opportunity here. And so that's how we got into it. The analyzers and that part of the market has been tremendously developed mostly by your larger companies. They've done a great job in developing those analyzers. The sample prep was really overlooked because it is, like you said, it's not a sexy area, but when you look at the whole process that the customer's trying to do, it creates a huge opportunity for us. And it's, we estimate in our industry. It's well over a several billion-dollar market. It's very fragmented now using older, outdated technology. And we have the opportunity to come in and really bring disruptive new technology, into this area. And so to me it became sort of obvious once we saw all that and a lot of that was again, being in laboratories and observing what's going on with customers.

Chris: I'm just thinking if I were an entrepreneur in that space in a different one than you're in, but similar, to look for those antiquated parts that are bottlenecks, the things that are less sexy because everybody's working on the big expensive stuff, but the small things that everybody has to do every day that can be vastly improved.

Mike: Exactly right. Yeah. And it made a difference. We brought the microwave digestion in first of all and that, that revolutionized the way people did elemental analysis. Now we're moving onto the molecular side, which is about a 10 times bigger market and bringing the same value there. And that was an interesting thing there because a lot of. When people are doing molecular analysis, basically they're trying to extract, extract certain things from the whatever they're trying to analyze. Whether it be a food sample or whatever else, and that extraction process very slow and laborious. And I was in um, got up one morning and I was in the kitchen making coffee using these k-cup coffee makers. You're probably familiar with those where you

put the cup in and push a button and in one minute you have a cup of coffee basically that's extracting things out of that coffee.

Mike: And it occurred to me, why wouldn't a technique like this bottleneck, that whole extraction process in a laboratory? And that's where our latest product came from. We call it a Q cup now instead of a K-cup and it's taken a five and six hour process down to a five minute process in a much more sophisticated... obviously we had to automate it and do a lot of other things. But the basic concept came out of that and it really was kind of thinking out of the box, why couldn't we do something simple like this rather than what's being done in a laboratory?

Chris: All right, so let's go bigger picture here. You started out small. You say you went public, then eventually bought the company back. So what has that allowed you to do?

Mike: It's allowed us to do tremendous things. You have a lot of constraints obviously as a public company and you've got shareholders that you have to be concerned with and just a lot of the reporting and all of that, the expense of being a public company definitely puts constraints on a company, especially on smaller companies. And the first few years we were public, I found it to be a very worthwhile endeavor. I, I learned a lot, spend time talking to analysts and it really helped me think more strategically in some ways in running a company. But on the downside was as we went along with the requirements of being public, I had to spend more and more of my time with talking to analysts and board of directors and things that didn't really directly relate to the company itself.

Mike: And it also made you become, in general, the company was more risk averse because to get things done you had to get approvals and so it really constrained the company. And the third thing and probably the main motivation for going private again, was that I knew eventually we would be taken out by one of the bigger companies. That the natural progression and I believed in what we were doing and really wanted to remain independent and build a great company, that it didn't just become purchased and become a division of some much larger company. So I took the risk of trying to take the company private and that's a difficult process, much more difficult than going public because you've got to get the board of directors on board and then you've got to compete against other companies that may want to buy the company.

Mike: But I got us through that process and once we went private, it was like a rebirth of the company because then I had, I could totally focus on the, the company itself and the organization and what was good for us long term. We could take more risks, I could decide pretty much whatever I wanted to do as far as what I wanted to pursue. And we could and we became... the words we

use are nimble and flexible. All of a sudden we became much more nimble and flexible, less structured and I think it gives us a tremendous advantage being a private company over competing with some of the public companies in our space and the larger public companies. Most of the companies in our space or the larger companies are public companies and they're, very good companies. Well run. But I think we have a tremendous advantage and I'll even hear that sometimes from the executives of those companies because we can move a lot quicker and a lot more nimble. We don't have all the reporting requirements and a lot of the other things that they spend time dealing with and the executives at the higher levels in those companies don't get to spend much time with customers and do the things that, that I get to do that. I think it was a tremendous advantage in being able to meet the needs of the market and be successful.

Chris: Yeah. Buying back your company, that's another whole episode because I'm just imagining like what if somebody who... So first of all, they know probably that you're trying to buy it back so they're going to jack up the price or they're going to look for somebody else who might buy their shares from them for more money or whatever. But that's an amazing thing. But let's talk about the advantages of having taken your company back. So for me, when I worked in larger companies in your space, the most frustrating thing for me was short term thinking constrained by quarterly reporting. So in, in terms of marketing, How do you market your business differently because you can do that long term thinking?

Mike: Yeah, it makes a huge difference in a lot of different ways. First of all, I don't have to worry about each quarterly result. I mean, we definitely challenge ourselves to be successful, but I can take the long term perspective and I can make investments and I can decide to try things and give them time to um, to see if they really make sense. Uh, I don't have to like, I can make decisions very quickly. I can make a major decision in the hallway talking to somebody. We don't have a board of directors. I don't have anybody I have to go to and, and get things approved. And it might be people that don't understand the business as well as I do. So it gives me tremendous flexibility. And in doing that, I think it also really motivates the associates.

Mike: They work with a company because if you're a public company, you'll be constantly told that you're trying to create value for the shareholders. But for employees in a company that doesn't really, that's not really a motivator to them because they're, they may be a shareholder, but is there kind of a minor shareholder. But in our company, what motivates people is where were all working together to be successful and to create an success to us is innovating and bringing products to the market place that cray real excitement with our customers and allow us to be the market leaders in the areas that we operate in. And the employees can relate to that more so than being a, a large public company where you're talking about shareholder creating shareholder value,

which doesn't really resonate with the, the people that down in the trenches that are doing the day to day work.

Mike: So I think there's a real advantage also. We were not highly structured. We're nimble and flexible. We can do things for our employees that a public company might not be able to do and everybody here knows that we're focused on the long term. We're not trying to do well so we'll be bought out by a larger company two years down the road. But we're creating an enterprise here that's going to be more and more successful. And that creates excitement in the people that are involved that this is something that they're going to spend their career here and be up be a part of something they can be proud of.

Chris: Yeah. That connection, that closer connection to the product or the company and making the impact in the marketplace when you feel whether or not they're literal owners of the company or not, they feel a little more ownership than perhaps someone at a larger company who just do their job and it's the company's product. Right. So our last question, what mistakes did you make along the way and what did you learn from them?

Mike: First of all, I've made a lot of mistakes and yeah, we've been overall very successful obviously as a company. But we have made a lot of mistakes and I've actually got a little thing that hangs on my wall that says don't be afraid to fail because the only way you're going to succeed is to go out and fail. And if you're not failing, it means you're not taking risks. You're not getting out of the box enough. So that's part of what you've got to understand and learn from your mistakes. Probably early on, mistakes we made when we first started, after we had our first product out, which actually did pretty well, we then we're in this mode where we've got to come up with some new ideas and we've got to get into some new areas to grow.

Mike: And so we spent time going off into areas we didn't really understand that well and going after some of those. And generally we were pretty unsuccessful in those endeavors. Fortunately we realized we weren't and we would back away from them and out of that. What came out of that was that the most success we had was to really focus on our core competencies, the markets we really understood and technology we really knew and go deeper and deeper into that and really create disruptive opportunities in those areas that we were already in. And that really paid off for us because we knew we were in areas we really understood. And I think it's like a stick to your knitting kind of philosophy that people talk about. And it really has, it really did pay off for us and we, that's when we started becoming more and more successful.

Mike: There's a good marketing book that talks about Blue Ocean where you try to find your operating in certain areas and as competition comes along, you try

to find blue ocean rather than that bloody ocean. But it still relates to what you do and that has been very successful for us. The other thing that mistakes that I've made along the way are people. As you grow, especially when you're smaller and as you grow, the finding the right people for the organization is one of the most important things you do. And, and it's, you've really got to spend time on that and make sure you get the right people. And if you don't get the right people, also be willing to make changes and understand that if it's not a good fit, take some action. And early on I would tend to not do that.

Mike: And I learned later it's better for both parties if it's not a good fit to do something different. Nowadays too, even though we've gotten quite a bit larger, any of the higher level positions that we're looking at marketing or selling or engineering positions, I'm generally involved in the final versions of the interview process because getting the right people in the organization is the most important thing that we're doing right now. And it's several things. One, you've got to get people with talent. I mean, that's a minimum that the talented people, but more importantly as it, you've got to get people that are gonna that are gonna buy in and fit into our culture in our organization and really become part of our organization and be comfortable in an entrepreneurial kind of environment that's fast moving, flexible environment. And some people are well adapted for that and some aren't.

Mike: And we've worked very hard to make sure as we bring on the new people we're finding the right ones. And we've been really successful. We've been around a while now. So we have a lot of people with experience because once people come here, they tend to stay here for the rest of their career. Our retention is very high. But now, in the last five years, we've brought a number of younger people on the so called millennial group, 25 to 35 year-olds and we've hired some great people. And the nice thing is we've done it in a way where they're really working with people that have been here. Those two groups are working together quite well. The new people bring more, you know, new energy and new ideas with them. They also benefit from the experience of the people that have been here and personally I spent a lot of my time with the new, the new younger people because it's, again, it's good for all of us. And bringing the new people in, we've been able to maintain the culture that has made us successful, this entrepreneurial culture that's nimble and flexible, but at the same time very focused on the things that we're going after. And so it's all come together

Chris: While you were saying that, I'm thinking one of the things that you must've done right early on is to establish that culture and that must make it, even though there are people who don't fit, that must make it more attractive to the right people and maybe easier for them to see or easier for you to see that it fits. Because your culture is so strongly defined.

Mike: Yes, very true. And what I feel good about now is, our culture now is strong enough. So if somebody comes in, they'll buy into the culture or if they don't, it'll become clear and they're not going to change the culture. The culture is strong enough to maintain itself. And we did go through a period, a number of years back when, as we started to grow, I kind of got this advice into, especially when we were a public company, that we had to to structure up a little more and become a little more formalized and our processes and we did some of that and it clearly didn't work. We started to lose our true entrepreneurial culture and I determined from that even as you get bigger, you don't have to lose that entrepreneurial culture based on size. We now have well over 300 people in the organization and we still have the same entrepreneurial culture that we had when we were first starting and confident we'll maintain that as we continue to grow and there's no reason you have to give that away just because you become a larger company. I think some people believe as you get bigger, you have to lose that or you have to structure to a point, they will cause you to lose it. But I don't accept that and we've been successful in not having that happen. And once you get your organization and the culture at that point, it, it will feed on itself and it makes it a lot easier to maintain it.

Chris: Well, Mike, I know you're really busy guy, so I really appreciate your time and your generosity, sharing all that experience with us. This has been a joy for me.

Mike: Well thank you very much. And it's been a real pleasure to talk about it. It's my favorite thing to talk about and it's been a real pleasure to be able to have this discussion with you. So thanks a lot.

Chris: My pleasure.

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