

## Material Technology and Eco Serial Entrepreneur Glen Finkel

Introduction ([00:02](#)):

Welcome to Green Building Matters. The podcast that matters for green building professionals. Learn insight in green buildings, as we interview today's experts in LEED and WELL. We'll learn from their career paths, war stories and all things green because Green Building Matters and now our host and yes, he has every LEED and WELL credential. Here's Charlie Cichetti.

Charlie ([00:33](#)):

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Charlie ([01:28](#)):

Today we've got someone tapping in from my favorite city, besides Atlanta, where I live and that's New York. I love New York. I've got Glen Finkel. He's really made a career out of the last 15 plus years in the material technology side. I can't wait to talk about solar as well as materials. Glen is the co-founder and president at PURETi Group. Glen, how are you doing today. We're doing great, Charlie, thanks for having us. Well, look forward to continuing our conversation. You and I connected recently, I was really blown away by some of the work you do. I love to always talk about the future and some predictive things so we'll get into that, but, but Glen, take us back. Where'd you grow up and where'd you go to school?

Glen ([01:51](#)):

I was born and raised in New York city and grew up in the city and around the city. I went to Penn for undergrad and Antioch for graduate school.

Charlie ([02:02](#)):

With New York and in choosing to go to college there did you have any early influence on where to go to school or what degree to get? How was that decision making process when you were going through your college experience?

Glen ([02:17](#)):

Oh, I was lost as a young man. I literally applied to a business school and engineering school and a liberal arts school. It was like throwing darts. I got into Wharton at that so I ended up at Penn.

Charlie ([02:30](#)):

Well, that's a good reason to go to a great school like that. Obviously, later in life become an entrepreneur. I love to talk business here and that probably really helps you in that direction. At what point though, maybe it was childhood, maybe it was college or after college. In your crew, did you start to lean into sustainability? Did you have an aha moment along the way?

Glen ([02:52](#)):

Yes, it was very much later in my life. I did go to the first Earth Day while I was at Penn, but that was more of a party than a sustainability initiative. Sustainability is really my fourth career. It was only about 15, 16 years ago that, uh realized what I had gotten involved with and realized how critical it was and committed wholeheartedly to the movement. I'm a relative newcomer.

Charlie ([03:24](#)):

Well, you've already had two good nuggets for those listening that maybe are college getting out of college. Those early choices. You have so many options there and then it's never too late for sustainability. Growing up or early in the career also, did you have any mentors? Sometimes it's not a mentor, you have in person that you meet for coffee. Sometimes it's just someone that has influenced or you looked up to or you read their material. Would you say you had any mentors, Glen along the way?

Glen ([03:53](#)):

My first career, I was a clinical psychologist. I actually was working in community mental health in Vermont. My friend and supervisor was very much a mentor from that experience. The big takeaway is we're all more alike than we are different. I didn't want to be a clinical psychologist. I was very briefly a commercial

fisherman in Atlanta. Excuse me. In Alaska, do you have any commercial fishing in Atlanta? I don't think so.

Charlie ([04:20](#)):

No. No, not the freshest. No, that's good.

Glen ([04:23](#)):

That's when I became a capitalist actually. I had a captain who we were gillnetting and he said, "The more you shake, the more you make." We had to chant that for 24 hours. It made me a capitalist and then I got involved in the shoe industry with my brother. He wasn't a mentor, but he was a good big brother, but I did wind up working for the richest guy in the shoe business. I have far too many quotes from him to offer. Most recently in sustainability, in my recent work, I have a friend who is an amazing human being, a Dr Talal. Talal Al Shair. He is from Saudi Arabia. He went to school in Maine, got his BA, his MBA, his PhD. He started an incredible company. It's become one of the world's largest companies and his passion for sustainability and the potential of materials to improve society has been very inspirational.

Charlie ([05:22](#)):

Wow. Everyone had some influence there. Thanks for calling those mentors, those influencers out. I think it's important to give them a shout out on what they've meant to you in your career so far. Let's talk a little bit more about connecting the dots and that sustainability breakthrough. This is the green building matters conference. Glen, let's talk about that fourth career and dive a little deeper. Was it hard to get into the part of sustainability you were starting to niche it into, or was it easy? Tell us about what really brought you into sustainability and what were some of those first initiatives?

Glen ([05:56](#)):

Got into sustainability through discovering a passionate, rediscovering, a passion for science and advanced material technologies. I was originally involved in some safety technologies that morphed into an air purification technology. 20 years ago, I was introduced to the science of photocatalysis, which I had never heard of in 2001. It was only less than 30, 40 years old at that time, but it was magical when I learned about it. It's a science that's actually been active on earth for a billion years before photosynthesis. Sometimes people in the green movement say, "Is

this green." And I say, "Well, I think it's a billion years older than green that it's tied to the origin of life. I think it's foundational. What hooked me was the scientists from Japan had discovered how to make surfaces photocatalytic in such a way that when light hits the surface, the surface will be self-cleaning, bio protective and air purifying.

Glen ([07:03](#)):

It was the purifying side of things that struck a nerve with me. I had asthma as a child, all three of my daughters had life-threatening asthma and I just wanted to deliver clean air to the world. We dove in years later, I learned that it was really part of a broader movement of sustainability. I got converted to sustainability religion. I had an experience, it was almost a conversion experience. I went to a lecture at the Explorers Club. It was on the scientists as Explorer. It was Orland UBeer who had been an entrepreneur and a sportsman and his hobby was to race across the North and South pole. One of his friends went to him one day instead of Len while you're doing this crazy business. Would you please collect some ice core samples? Orland UBearer is the fellow who collected the ice core samples that became the backbone of the Al Gore slideshow, where they started analyzing carbon dioxide and correlating it with planetary temperature. He was the first to really break through with me. He's scared the heck out of me and everybody else in the hallway and that's when I started to pay attention.

Charlie ([08:21](#)):

Tell us about material technology. Where do those categories start and stop? I hear that and almost think of nanotechnology, but I'm in the built environment. I think great building materials, but you've mentioned codings and new technologies. Where do you define material technology? What does that start and stop for the audience here?

Glen ([08:39](#)):

It's everything that is composed of the built environment and it includes nanotechnology as the most advanced form of it. It also includes nanosensors, which are now included in technology, but also include a whole lot of information technology to analyze the data collected by the nanosensors. It includes bio mimetic materials. I think that's one of the most exciting new trends out there. Very big picture. The 20th century was the century of chemistry and the 21st

century is going to be the century of biology and biomimetics, and helping nature restore balance.

Charlie ([09:24](#)):

I love it. This is what it's about on the podcast. What's also coming next, but tell us about your company that you founded over 17 years ago. Tell us about some of the work you do, and then what's keeping you busy today, Glen.

Glen ([09:36](#)):

PURETi was founded around this science of photocatalysis and a breakthrough in making a water-based version of this technology. It wasn't ready for prime time when we were first introduced, we did a lot of work to get it ready for prime time. Get it to be totally transparent, clear, nano, thin, durable, and powerful and now we manufacture in Ohio and we sell to companies that applied purity coatings at the end of their production line as a final finishing step. And that ranges from cladding manufacturers to artificial turf manufacturers, to people that do out of home printing of signs, solar panels. It's literally endless. Most recently, we've had a lot of activity in the indoor air quality space. It's always been about indoor air quality, this dream of delivering hospital grade, pure air to any room anywhere. We had to wait for things to come along and develop to complete the ecosystem, which we now have. So that's a lot of our work in an, all of a sudden due to the pandemic indoor air quality is quite the buzzword, and we have a system now that can deliver it, measure it, prove it's active and effective 24 seven and pay for most of it with energy savings. It's quite an exciting moment.

Charlie ([11:04](#)):

That's a great combo. You're right. A lot of this healthy building push was around before the pandemic hit. Now it's of course, returned to work. Is this a healthy building or not? Is this a healthy space, it's, what's needed right now as we come out of this pandemic, as we're recording this podcast, you've also obviously got a specialty in solar that goes along with this. So it's not just the coding. Tell us a little bit about Toledo Solar and in that connection to

Glen ([11:30](#)):

I'm an entrepreneur, it's in my DNA. We started as co-founder of Purity but then it's through, I guess a mentoring relationship. I got involved with this opportunity which is now called Toledo Solar. I'm one of the co-founders of that factory. It's the

first new American manufacturing panel in 10 years. Our panels are technically identical to those of the first solar, which is the other American Solar manufacturer called Cantel Thin Film. It's different from the PB Silicon that most people know when installing. It's got a lot of advantages and we've had some great breakthroughs in recent days and starting next month we begin the architectural engineering to turn our solar glass into solar windows. Within two years, Toledo Solar will be producing highly efficient, clear solar windows in addition to spectacular rooftop modules. So we're very excited about that. That was my second, clean tech company who started with clean air, went to clean energy, and then even more recently have started with clean water and clean materials with Oakwood water and Aqua materials.

Charlie ([12:47](#)):

Entrepreneur, and I love the innovations that have also come out of the pandemic. It's a blessing in disguise. Tell us a little bit about how you spend your time your day. Is it relationships, is it sales? Is it innovating? How do you spend this part of your career and what these businesses you're involved with?

Glen ([13:06](#)):

I'm very blessed to have smarter younger partners who do a lot of the actual work, and I get to have fun spending time on strategy and networking and then collaboration and seeing what's around the corner. I literally do not know what I'm going to be doing from one day to the next and somehow the days are filled and I looked back and they'd been productive. So I'm not sure

Charlie ([13:34](#)):

My question, and it's leadership answer. I feel that's what I'm hearing Glen, is make sure you have really great leaders within your businesses. You really know where you need to get out of the way, but where you need to insert yourself. It sounds like you've achieved that. It's really exciting to hear. Let's look back one more time. What's on the highlight reel, it's a humbling question, but what are two or three achievements you really are proud of?

Glen ([13:57](#)):

Well, with Purity, getting recognized by NASA, we're a NASA Dual Use Technology Partner. 10 years into it I was sick and tired of people saying this sounds too good to be true. NASA came along and said, "No, this is true. Not only is this the best

stuff in the world, it works in outer space and here on earth, that was great." We did a project that the museum of modern art in 2012 called Wendy. I know there are a lot of architects listening to this show and I got to speak to a thousand architects that summer. I urge anybody to go look it up. It's a spectacular looking blue spiky tent that we sprayed. It had the equivalent of reversing the pollution of 260 cars that summer. We got involved with a European project of spraying roads, and we were one proof point away from being specified by the European research to be applied to all urban canyons in Europe, to reverse outdoor air pollution when COVID hit. We hope to get back to that, but that's the Purity side of things and just launching Toledo Solar, and launching Acqua Water. We're very excited about those projects as well.

Charlie ([15:09](#)):

All very exciting. Let's look at the future. Let's pretend you had a crystal ball. Where do you see the sustainability and especially green building movement shifting? What are you reading up on, for example?

Glen ([15:20](#)):

Well, I see a color shift coming. By adding a fourth R to reduce, reuse, recycle for reversed pollution, with blue skies and blue water. I'm a technology optimist. I'm in the business but I can see a lot of what's coming next. Net zero energy, net zero water, net zero waste are in our near future. Nano sensors will interact with everything to make life more efficient and enjoyable. This movement towards integrating nature into what we do, there is a whole new movement of completing these broken cycles, the water cycle, the nitrogen cycle and the phosphorus cycle. It's created, there's a whole new circular economy being created that will link the soil to the seed back to the soil and that will impact on architecture tremendously.

Charlie ([16:21](#)):

No, those are great from the biophilia of the circular economy, but you're right. Reverse. That's a good one. I think there's a lot of leading indicators that we're trying to do, but you've got to tie it back and show why we're doing this. We need to reverse rapidly. Let's talk about that a little bit more, the material technology side and you're working on quite a bit, now there's some other things that are very innovative, you're impressed by and help educate us in this and the audience of the podcast here. Did these take one to two years? Are they the next 10 years?

Like you always hear that this technology can advance so fast today, but we're really, if someone were to come up with a new idea and go to market. Is it cut down to a couple of years or it's still a five or 10 year effort?

Glen ([17:09](#)):

Well, the answer depends on where you do it. We've learned the hard way. It's a lot easier to innovate outside of America than inside of America. We pursued that model here. We have too many entrenched interests and too many things get in the way, but you can prove it overseas and you can bring it back home in advanced materials. There's an exciting company called Made of Air that is making carbon negatives of building architectural materials. We just launched Aquaman materials to make Geebo, which is a hundred percent biodegradable by regenerative, non petroleum based plastic alternative with no capacity constraints. There are plants based plastics, but they all have capacity constraints, ours have none and a will. When it falls apart it actually nourishes the soil and nourishes the sea. We're now working with Native Air. I got to know these folks through the purity business, and now we believe our additives will integrate with their technologies that we can both get to market within two years.

Charlie ([18:10](#)):

That's exciting. I love business entrepreneurship and green tech here. What would you say is your specialty or gift?

Glen ([18:19](#)):

My gift? Let's see. I'm very curious if that helps. I was trained to be a good listener as a clinical psychologist to listen more than I speak. I just think I have this knack for finding really smart young people who are seeing around the corner and helping them get further.

Charlie ([18:44](#)):

Great. Yeah. Since listening is one that, that I'm sure that's helped you tremendously too, we all need to become better listeners. Thanks for hitting on that one. Do you have any good habits, routines, rituals that have helped you go and stay productive?

Glen ([18:56](#)):



Well, I go for a morning constitutional every day, my wife and I walk our dog for an hour, and it's a great way to start the day. I think Harry Truman was a big proponent of that and it actually works. I wish I knew about that when I was a marriage counselor. I that's all I would have said to people

Charlie ([19:16](#)):

Now, can you give us a peak there? Is it conversational top of mind? Is it some, some quietness? Like what?

Glen ([19:23](#)):

Oh, it's a very, very conversation. My wife works as a leader in an not-for-profits so we're constantly going back and forth about what's going on in each of our worlds.

Charlie ([19:36](#)):

That hour of exercise with the dog. But thank you. Great pro tip there. I really appreciate that. Glen, as we get to know each other more, I'm a fan of a bucket list, so to speak, what are one or two things maybe on your bucket list? Is there any more adventure or travel or writing a book or starting another kind of company? What's what's on the bucket list?

Glen ([19:55](#)):

I've never had a bucket list. I've never been but recently it's the wildest thing there was an image on my screen saver from Microsoft or something, and it was the Feral islands and it just captured my fancy. I guess the only thing on my bucket list is I want to go to the Feral Islands.

Charlie ([20:17](#)):

I love it. It's those subliminal messages, but those are so high Rez and beautiful. It's like, okay, I gotta go there. So

Glen ([20:24](#)):

I've done a lot of traveling but I'd never seen anything like this and I got to go.

Charlie ([20:28](#)):

It's on the bucket list. Thank you. Let's talk about books? How you consume information: some listen to podcasts or are audible audiobooks. Some like to pick

up a book in their hands and hold it. How do you consume information? Is there a book maybe you'd recommend to the audience?

Glen ([20:45](#)):

That's a great question. I'm a voracious reader. I alternate fiction and nonfiction. Here's a book that made me feel really good about myself, which I recommend to a lot of people. It was published, I think two years ago, *Range the value of generalists in an overly specialized world*. David Epstein, it's packed full of inspirational stories. In this modern computer driven world of ours, is driving too many of us into silos. Not enough people are able to look right and left and zoom in and zoom out. This book tells you how important it is to do that.

Charlie ([21:24](#)):

We'll put a link in the podcast show notes. This is awesome. Great book recommendation. Thank you. Two questions. As we start to actually come to a close, this has gone quickly and I've been inspired. What's some career advice you wish you had had a little earlier in your career?

Glen ([21:40](#)):

I would say I heard some advice. My wife was given what she gave to me and I just love it. I share with a lot of other people, "Do the work in front of you" A lot of people get, get caught up in a whole lot of other stuff, and I do more than most. Doing the work in front of you is a very grounding bit of advice. My daughters were fencers. The best fencing coaching advice was move, but don't rush and that's another good piece of advice.

Charlie ([22:10](#)):

Oh, these are golden nuggets here. , I, as a, as a visionary, as a seven on the Enneagram, which I'm sure you are too, is we never liked to hear the word focus. Right. But the way you just worded it, doing the work in front of you, I think I'm going to start using that more. So thank you for that advice. I really liked that. And in closing, let's say there's someone listening right now, Glenn, and they're thinking of making a career in green buildings, sustainability, what words of encouragement do you have for them?

Glen ([22:37](#)):

Oh, come on in. The water is warm and heating up quickly. It's all, it's all hands on deck. We need to be very encouraging on that score.

Charlie ([22:50](#)):

You've inspired me just your story and really getting into sustainability a little later in your career and now starting businesses around it. You've given us a peek into what's coming, what you're reading up on and also some pro tips and just some good advice, life advice, and some really good career advice. Anything you'd like to wrap up with here, any final thoughts

Glen ([23:11](#)):

To thank my good friend, Daniel dryer for introducing us? He is a great champion of all things, green and blue and sustainability. I thank you, Dan. This was fun.

Charlie ([23:25](#)):

He will hear that he will be listening. Daniel's a great guy in New Orleans and quite the inspiration as well. Everyone, this has been Glen Finkel up in New York city, quite the green tech material tech entrepreneur. Glen, Thanks for sharing.

Glen ([23:39](#)):

I appreciate it.

Charlie ([23:42](#)):

I just want to say thank you to our loyal listeners. We actually are celebrating over one year here on the green building matters podcast. Me and the entire team were stoked and just so glad to continue to listen every Wednesday morning to a new interview with a green building professional here in this industry, or just some pro tips that we want to make sure that you are getting straight from us straight to you.

Speaker 4 ([24:07](#)):

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enjoyed it, leave a positive review on iTunes. Thank you so much. And we'll see you on next week's episode.