Welcome to Green Building Matters, the original and most popular podcast focused on the green building movement. Your host is Charlie Cecchetti, one of the most credentialed experts in the green building industry and one of the few to be honored as a lead fellow. Each week, Charlie welcomes a green building professional from around the globe to share their war stories, career advice, and unique insight into how sustainability is shaping the built environment. So settle in, grab a fresh cup of coffee, and get ready to find out why green building matters.

Charlie
Everybody, welcome to the next episode of the Green Building Matters podcast. Once a week, I get an interview, a professional somewhere in the world. Sometimes it's green buildings, healthy buildings, sometimes it's technology. What's the latest technology that can help us design and build and operate buildings? And maybe it shakes out some efficiency. And that's kind of what we've got today. Every now and again I get to work with a colleague, and today I get to interview one of my co-founders at Skema. Richard, how are you doing today? Mandy. We're going to know each other over this journey, this wild tech startup journey. We're going to talk about Skema a little bit. You've got a fascinating background. And so that's where I love to just start is to give us that origin story. Where'd you grow up? Where'd you end up going to college?

01:16
Richard
Despite my accent having migrated a little bit across the Atlantic to the USA, I'm English. I'm actually an army brat. My father was posted all over the world, so I got dragged around the world with him. That led to me spending most of my education at boarding school, which some people throw their hands up in horror

and say how horrible for a kid to have to live away from his home. But it was a little bit like being in a Cub scout camp for seven years. It was pretty good. And I still got to spend my vacations all over the world in some really interesting places.

01:54
Charlie
Amazing. Andso buildings, architecture. You started studying architecture practice. So tell us about that. Did you know you wanted to maybe become an architect one day? How did you get that influence?

02:08
Richard
No, a little bit fell into it. I did secure an invitation to join the Royal Navy. There's a college called Manadon in the UK where you. It's for Royal Naval Engineering. I was thinking of moving into engineering design and I think I got a little scared of the idea of when you're, I think when you're 1718 years old, you're asked to sort of commit that you're going to stay in the navy for. I think it was like. I think it was a minimum seven, but it could have been closer to ten years, and that seemed like a lifetime. So I ran away to architectural school in a way. And probably my engineering kind of background is what led me to get a little bit more drawn into the computer side of the business than maybe some others.

02:55
Richard
In fact, I probably. I was at a school called University of Greenwich and which was heavily associated with the architectural association in London. We used to share a lot of tutors and was somewhat of an art driven school, and I was definitely an engineering driven student. It didn't always lead to the best results for me, I'll be honest.

03:18
Charlie
Rumor has it you are so swimming and playing a lot of music and tennis and field

hockey. Hopefully I had a good time there as you're getting that architecture degree. I like to go ahead and ask about when you first get exposed to some of my guests, Richard? It's about Leed and green buildings, but in your case next to you make this amazing career in AEC technology. Take us back to even when you're at architecture school, likethat was a transition from 2d CAD. We didn't have revit yet. We're going to get to how you helped be a part of that. Butwhat was going on even on the technology scene as you were becoming an architect?

03:55
Richard
Fortunately or unfortunately, I'm old enough to have spanned quite a few generations of technology. And probably when I was at school, we were definitely pre technology. We had CAD systems in the school, but they were mainframe, they were pretty unwieldy. We pretty much had to code to get anything out of them. But when I was studying architecture, we didn't call it that, we didn't talk about it in the same way we do now. But the idea of sustainability in buildings or trying to create architecture that had low waste and high reuse of materials was pretty prevalent. We studied people like Walter Seagull, who came up with a method for fabricated buildings from recovered timberland. And just about every architect we studied had come up with some modular way of using repeatable elements to improve the efficiency from design of construction. But then we used to talk about waste more than carbon waste was, and still is the biggest carbon problem we face. And I think it often strikes me that we've kind of reconstituted, if you like, the way we look at the challenge of sustainability, I think a lot of the work that was done, particularly during the nineties, Egan and Latham were commissioned by the UK government to do reports in the late nineties on what was happening at construction. And I basically came up with 30%. All construction effort is probably avoidable waste. Then you look at that and they were saying 70% of that is down to informational issues. And as some of my good friends in construction in the USA tell me, and I won't mention the firm here, I was told that they say for every. All buildings they build, they put one in the ground so that's kind of the scale of what we do here now.

05:40
Charlie
Thanks for shining light on waste. We skip past it and go straight to energy efficiency, led lights and more. Let's. Let's design better, build better materials. We'll get into that and just how we're delivering buildings differently, maybe with some software. But I like to also ask my podcast guest, Richard, about mentors. Not everybody has a mentor that's in person or opened a door for you and maybe it's someone you looked up to. You read their material, saw them at a conference. But did you have any mentors along the way as you built up this career?

06:07
Richard
I've had quite a few. , I think everyone asks you about, when I ask you about your mentor, they're expecting you had this big aha moment when you were like, in your early career, that someone made a big difference. I actually believe that the deeper in the career you go, the more important mentors become. And I actually think your acceptance of having a mentor probably reduces the further you get into your career, because you kind of build self confidence and wisdom. But for me, early in my career, I was lucky. I joined a company called Bovis, pretty much out of school, and they pointed me at this great box in the corner that had Cad written on the side of it, probably because I was the cheapest guy in the office. And that led to me having a lot of opportunities that I wouldn't have had otherwise because I was bringing different types of information into the company and became one of the computer experts. I got invited to, probably at age 22, to help build the ISO 9000 standards within Bobas Homes and Bobas construction in the UK. And the guy who was doing it with me was in his last year working, moving into retirement because they wanted to capture all his knowledge. I had a lot of trust from John. He was the CEO or the managing director, as we call them, mostly in England. And then through my career, I was moved over to the USA after a conversation with a guy called Phil Bernstein, which some people may recognize the name.

Richard

He was an autodesk for a long time, and now he's the associate dean at Yale University. And were trying to push the billing information modeling concept into the market. I was a junior sales guy in Europe, and I met him in Munich, and that's less than three months later. I was running a go to market in the USA for Autodesk trying to get Revit and Bim in the market, and he was always a great supporter. Real renaissance man, which maybe I think is the mark of a lot of the people I've had respect for. Another guy I noted as Ken Bedo from the go to market side was an incredibly inspirational guy. And when I became a CEO, he was the first guy I recruited onto my board, which was a total pleasure to be able to have somebody like that. The trust to develop my career and then the trust to support me in my career. I got to work. When I was a CEO, I got to work with Marc Benioff's advisors because he invested in our company. And then more latterly, it was really interesting to work with a guy called Michael Marks, who was the founder and CEO of Keturah. Michael made his money investments and also in a company called Flextronics, which he took from $10 million to $30 billion. His insights and knowledge, even to this day, we still talk, even though Katura is no more. I think if you find those relationships. I had a bit of advice from a guy that sounds like a total name dropping from the location. I was in a hotel in Monaco watching the Grand Prix.

Got to know this guy sitting next to me who's Canadian, and now he's living in Monaco. He just gave me one piece of advice. He said, if you can build a relationship and work with people who've got money, double down on those relationships, because find out how they made money. And then he said to people, and honestly, try and find a way of getting them to invest in you. So I think a lot of people say people could be lucky in their careers, and they're lucky in the way they make money. And I think that might be true, but you tend to find those who really made a lot of success have also had a ton of failures. And there's a lot to learn from finding those people. And even if they don't know you're treating them as a mentor, treat them as a mentor.

09:43
Charlie

A lot of wisdom is there. I love that I asked the question about mentors and your take on it. Richard, that's fantastic. There are a lot of great relationships there. Still kind of looking back a little bit on this career you've put togetherI like to kind of follow up with just maybe some of your proudest achievements so far. Then we'll connect the dots on Revit, some other great startups, and of course current day Skema. But what are some things that stand out in life and business? What's on the highlight reel?

10:07
Richard

Greatest hits? I don't tend to dwell on the hits as much as some of the things that I think it's my nature, maybe some English. I tend to kind of dwell a lot more on the things that didn't work so well. I definitely think that what we managed to do from 2004 to 2008 with building information modeling and revit when I was at Autodesk, I think that marked a particularly successful time in my career. The company changed an awful lot in the process of when that happened.

10:39
Richard

I went from a company which where the leadership and then we had a CEO was a lady called Carol Bart, and you know, she was a real fail fast forward type of person and encouraged people who would dare to just not be limited by either their rank or role and often the span of control and try and find ways of growing the business. And we certainly did that. It's always interesting to me now when I meet people with building Bim in their job title because to me it was something we had on a whiteboard and were trying to figure out how to communicate the value of Bim and all sorts of weird and wonderful ways of trying to do that.

Even wavy lines were trying to describe how much BIm is in autocad relative to the revit and trying to find a way of communicating degrees of, which is just

hilarious looking back. But at the time, it was a real challenge in the market to have people buy into this concept. And there were already concepts around like a single building model, which was more associated with Graftisoft. Actually got to know the CEO there very well. To this day, it's always fun to have him, talk to him, have him be frustrated that we basically repackaged this whole concept and it became the winner. But I think that was a particularly great period. And working with people like Phil Bernstein and the other great professionals we had in Autodesk, it was a rich vein of success. And some pretty wonderful experiences.

12:15
Charlie
There's greatest hits. For those that don't know, Richard's a big guitarist, big music fan, got some incredible concerts over the years. Got to learn about some of those. All right, well, let's, we've got to talk about Revit. So you transitioned from architecture to work with this company called Revit Technology corp. And, man, how did you end up there? Tell us about that ride. You stayed on Autodesk for a better part of a decade, creating what we now know as the bimbo. But tell us a little bit about that.

12:40
Richard
Echoing a little bit from what I just said, I joined, I think I was the second or third person outside of the USA to get recruited by Revit Technologies Incorporated, based in Waltham, Massachusetts. It was really through, I'd been working as an independent consultant for the end of the decade of the nineties and had a pretty successful business. I think it's because anyone who knew computers back then could basically be more knowledgeable than most people. I was writing websites, I was lecturing on what was going to happen with the y two K challenges, which obviously was nothing. I was doing that for a government agency in the UK and traveling around, and I was also doing websites for Autodesk. The first three co dot UK websites for Autodesk and got a little bit involved. And when they consolidated into a global website, working with the team, it was based in Hawaii. They wouldn't fly me to Hawaii, but the whip team was in Hawaii. And that's how I

got to know a bunch of people in Autodesk who really bailed out and joined Revit in the early days. And obviously, one of our co-founders, Skema Marty, was one of those people. But there were a couple of other guys I got to get to know, and I was in England. They were looking for someone, I guess, a little entrepreneurial. And I met a marketing leader and a business development leader of Revit in a little hotel in central London.

It was called my hotel, and it had a little library in the basement. And they opened the laptop, which ran, obviously, as slowly as laptops did in 2001, I think it was or 2000, and drew these walls, put a door on it, put a dimension on it, locked the dimension, and then moved the wall. And I was like, I'm in. As soon as I saw that, I was like, okay, where do I sign up? And so I joined dare and I became, actually, it felt like a little bit of a step back in a way, because I started to move more into sales and I'd been leading a pretty decent team of people. Even though I was a contractor. I was actually leading a team of people for an Autodesk reseller in England. And they said, can you be the technical guy?

We want you to learn how to use the software. And I thought, I'm not sure I want to go back into it, but it was a great opportunity to work on it. I ended up leading the technical sales organization and building most of the demonstration sets that got put in front of customers in the market and the sets that got used to raise money and ultimately to close the deal in the acquisition with Autodesk.

15:11
Charlie
I love hearing these stories. Well, we're going to have to get the Skema in just a minute. You've worked with some other amazing companies, Richard, as sometimes CEO, sometimes advisor to capital being deployed, your time at Katerra. I don't know, you want to hit one or two more things. I know there's a lot we can't unpack it all and then let's talk.

15:30
Richard

I think some may, at times during my career, I could be accused of jumping around a little bit. And even in Autodesk, I was there for just under ten years. And I think on average, I would be changing jobs or job titles. It was like at least every 18 months. And normally it wasn't actually my choice, but it didn't really matter. You're still told you're in charge of your own career. I've had a lot of really interesting opportunities. When I came out of Autodesk, I was running AC marketing globally. So we had, with budgets and employees, it represented about between 50 and $55 million of spend globally. Obviously, we had multiple teams in multiple countries managing that spend.

My team was really responsible for the core strategies and all those great messages that you all became very familiar with about what Autodesk would do to help improve your business, and particularly around things like green building, studio and sustainability. That was big for us at the time. We did some really interesting projects like Project Chicago, which is like a future kind of look into how you might be able to do building operations and or make design decisions. So we do a lot of pretty good work either in my team or associated with my team. But when I came out from that organization and joined a six person firm in Portland. My first act in the company was to write a check to cover the salary. As we were going through.

17:01
Richard
We run out of money when I joined and were just trying to raise money, which a couple of months later we ultimately did. And I got my money back. So that was good. I think I've always liked to take risks. I've always described myself as someone whos like to run into fires. On the business side, I like seeing a problem that has to be solved. I like making the machines of business work better. I've not always had success in that, but it's always been my goal. And I think ultimately, I think when you are seen as someone who is prepared to be a bit of a risk taker, you get very interesting opportunities. Katera was definitely one of them. Fascinating company to work for. Much misunderstood. It's almost hilarious when you see the op eds and articles that have been written after its demise a few years

ago, where informed commentators will talk about what could and should have happened if different things had taken place. , ultimately, it was just every day it was a laboratory to try and make every little piece of the process better, and that wasn't always successful. But as Michael Marx would probably say, if he was joining this call, he would have this podcast. He'd probably say, everyone says we did too much. And he says, actually it's completely the opposite. When we had opportunities to do things, we probably didn't do as much as we should have done. We could dig into some of those things and the processes.

But ultimately, I believe that, just as I think you could look at companies in the nineties, such as PTC and all the people who left PTC that went on to join or become part of and spread mechanical design ideas into other companies, I think you could say Autodesk has definitely done that in the last decade. There was a time when no one was leaving Autodesk. I would say, although Autodesk was around 2007, 2008, it was a company that no one left. No one was leaving the company, which is a little frustrating as an entrepreneur because we often used to say to each other, we wish one of the VPS would leave and start a company, so we go do something new. But that just isn't happening.

19:15
Richard
And then the decade following, there was a big exodus, particularly when Kyle Bass left, after he'd taken over from Carol, when he left, I think we saw a lot of people move into the market, and it's very common to see ex Autodesk people now doing fantastic things in the business. I'm not going to name all the companies, but it's really good to see a lot of entrepreneurs come out of that. And I think the same is happening with ex Katerra people and wilk because they went from like 50 people to nearly 8000 in six or seven years. And all those people got infected with the idea that you could change things.

19:53
Charlie
What a great result of coming out of that team, man. Holy cow. Got goosebumps

here. Well, that's a good segue to Skema, man. Richard, for those listening that don't know about Skema, tell us what Skema is, your role there, and what it take to build a successful AEC tech startup?

20:13
Richard
That's about an hour of chatting just there. What the Skema came about from a company that was based, an eastern european company that had a benevolent investor who basically saw a generative design configured as a business opportunity, did some amazing work, and built a really interesting team of people. And although there were a lot of successes in these little solutions or little solutions that would do things like build a parking structure or have a generative design response to some repetitive elements of a building or a piece of infrastructure, really never really managed, just like a lot of software companies that are developer driven, never really managed to find a way of doing a repeatable, go to market kind of package, or to package this in a way that you could actually build a commercial software business.

And one of my co founders, Marty Rosmanus, who spent about, he was ex Revit, he was there with me at Revit as the product leader, and I was at Autodesk for a short time, but then went to Deso for ten years and learned a lot about the industrialization of design, if you like, because obviously that's where Deso systems live, which is more on the manufacturing side, and prefabricated design responses to construction. He found this company and got pretty inspired by them. And that's obviously when Charlie, he introduced you to them and about, I would say probably two, three, four months later, he and I met in London, actually, and we just started talking about some old things that worked well with Revit and other things we've been doing, and then what wasn't working well.

21:51
Richard
I built a very strong belief that we were looking at the challenges of design in the wrong way. I'm pretty convinced that weren't providing tools that allow designers

to design for constructability. In architectural school, you're taught to almost try to not be bound by the laws of physics and gravity and to free your mind, which is the absolute antithesis of what you need to do if you're trying to figure out a way of building a product that could be repeated multiple times. So there is great beauty in the architectural process that creates museums and wonderful inspirational structures that are built once by highly skilled, artistically driven people. But then there's the other 70, 80% of buildings in the world that actually are highly repeatable.

22:48
Richard
And it doesn't matter whether you go from one Marriott hotel to another Marriott hotel, there is a reason why you have a similar experience in that building, because that's part of the brand, it's their product. But even if you go from a Marriott to a Hilton, they're actually trying to compete by having, in some ways, a similar experience, but just trying to make it slightly better. A lot of the core elements of these buildings, of these typologies, end up being fairly repeatable. And if you break that down into how an architectural firm works, you're really just talking about what is modular, what size of modular? And you go all the way back to Corbusier, and Corbusier was trying to form a modular man and trying to do modulus within buildings.

And how can I create a modular that is the perfect design that I want to do multiple times we speak to. When we looked at what we could do with Skema, we could say it's like, okay, we cannot reduce the architect to someone who's just putting Lego blocks together and has no influence on the design, which is what a lot of generative design solutions we've seen coming to the market do. What we have to do is have a heuristic solution, which gives them all the benefits of not having to redesign elements of the building, that there is no added value to designing it again. Once I had a two bedroom apartment and I figured out how the kitchen experience should be in bathroom experience, I could just keep designing that over and over again.

24:08

Richard

Or I could just say, like, there are elements that I want to reuse very easily in the new design, and I want to do it early. I don't want to, I don't want to wait until I've got the go ahead from the client and then start figuring out how the elements, like a bathroom and kitchen should be. I want to be able to, very early design, put these things together. And with Skematic design, I know that what I'm showing to the client is highly constructible, very predictable, and then have the machine look after it for me. I don't want to have to redraw all that stuff. Just have the machine build the majority of the models, the drawings, and the things that get me paid. I don't want to always have the overhead of doing those again and again.

And that's what we're trying to do with Skema. We're not trying to give you a 100% answer to a building design. What we're trying to say is, like 60, 70% of a lot of typologies, like schools, hospitality, hotels, multifamily data centers, anything you could think of where there's very repeatable elements. Let's have the machine look after the things that aren't the inspirational and differentiated part of design, so that you can put more time into thinking about the quality and things that you bring as a designer that truly make the difference to the owner, the client, the occupier, and probably help you win more work and make more money in the process when you deliver the designs. I'm not sure I answered the second part of the question, but let's divert.

25:29

Charlie

I think a mix of what you said earlier with the other great companies, what we're doing here at Skema. In a way, we like to say, Richard, we're doing some modular design. That'll aid later with all those repeatable. But I think one reason you jumped on to this team and for this ride and helped us build it is we do have this machine learning over here. We have our morphing and AI, and it does fit into this new chapter of how we're designing and buildings. And it's not just more of the same, it is something different. Put together an amazing team. We're looking

forward to really growing that team. I don't know what else to do with Skema. Maybe some of our early adopters were early in this year.

Richard

The second part of your question was more about, okay, so we've got this great idea. We think it's compelling. We've tested it, and people have told us it's a compelling idea. And part of the reason we can tell is that we are getting invited by many different parts of the industry too. If I get involved in initiatives that would further demonstrate this idea of being able to design with a modular methodology, even if you're not using modular prefabrication to deliver, just give me the opportunity to think more modularly, which unlocks all sorts of other ideas. I can now think about carbon and body carbon and production carbon, because I'm using these repeatable elements, and I already built it once, and I knew what it took me last time, so I don't have to figure it out again.

I know what it is, but you've still got to then build a company around it. And we've all seen great ideas that have failed. Even if you look at something like the iPhone, the iPod, and I think all the way back to Steve Jobs putting something like that in the market ten years earlier, that completely failed. It comes down sometimes to timing, and it's where opportunity meets need in a way that you can demonstrate value that really unlocks the opportunity for a company. And I think you've got to have a group of people around who believe that what you're doing is meeting that and you're there. And bringing it back to green buildings and sustainability. I think we've seen a lot of false starts from a technology point of view in that market.

Because all the elements you need to build a business, monetize ideas and concepts, is not always just down to how you execute the creation of something, it's how you execute the go to market with the right people to figure out exactly where to put the tip of the spear and find, bluntly find the watering holes where people go that they can see that's valuable, such that you can get exponential growth in sales and engagement from as much as possible. Customers that look a lot like each other. And that's where we were at the stage we were at with Skema

right now. I think we're experiencing, as I have before and a lot of people have before, the same excitement, opportunities and enthusiasm.

And comes from having something that just feels just right also with the same challenges of people are always looking at, do I buy this from you? Do I build it myself? Do I have a partner? Do I believe you're going to be the ones who will be successful? Because even though we like to all think we have something unique, there are always many ways of addressing business problems and it's just is yours the most elegant and can it be the most attractive? So the whole product of what we do at Skema is something I try to think about a lot and so does Marty and obviously so do you charlie. And it's why we perhaps make an over investment at this stage in customer implementation and what we would call the quality of experiencing value rather than just spending a lot of money on sales and marketing, for example, which we definitely don't. I think this is the exciting time to be in a company like this.

29:28
Charlie
That's amazing. That's great to hear. I know we're looking at what you and Marty and others, Steve had done a little over 20 years ago with Revit and some of that might still work now. A lot of it's just that adoption, you gotta get this tool to people that really can champion it. We're having a blast. Richard, I love working with you on all things Skema. Everybody check out Skema AI to learn more. Let's learn a little bit more about the future and a little more about Richard. What are some predictions? Richard, we're right now in this AI movement, maybe even looking past that, how do you think we'll be delivering operating buildings down the road? Anything you're excited about, anything you're worried about?

30:05
Richard
I don't think I'm worried about anything. I know there's a few analogies that I use, perhaps that I use them too often. One is from a marketing perspective, and certainly greatly and maybe overly encouraged by investors and commentators, is

that we tend to prescribe AI in the same way as 16th century doctors used to prescribe the use of leeches for every illness. It doesn't matter what the illness is. We'll do some bloodletting with some leeches. And that's the way we almost talk about AI. You can't see a billboard without AI written in the corner now. And it's like no one's really explaining why that's needed. But it does help stock prices, it does help you raise money. It does open some doors for you. But in reality, I think we're, this is the second analogy. I think we're really tadpoles rolling onto the mud flats at this stage when it comes to how we can use computational and algorithmic capabilities to solve some business issues, I always think that people misunderstand a little bit that if you train a machine, you use machine learning to do something. What machine learning does really well is that generally it lets you do a very simple function a massive amount of times very quickly, and that's why it can learn. So if you show it a thousand photos to learn what an elephant looks like, it can do that, and it can do it relatively quickly, inarguably, might be doing it faster than a human being can do it. But that means you have a function now that can recognize an elephant. And if that's valuable to your business, that's great.

The other thing, and then you start to look at some of the more algorithmic functions, that once you've trained a machine and you start to get into something more algorithmic, maybe not a very narrow piece of AI, because obviously there's narrow in general, there's all sorts of ways of describing AI. But if I've got a field full of elephants and giraffes, and I'm asked as a human being to count them. Then the first thing I gotta do is figure out how to corral these things so they stop moving around the field. Otherwise, you go, 1230. Damn. Just moved. Whoa. Okay. One, two, three. Now, a machine has been trained even just on what an elephant is, and doesn't even need to know what a giraffe looks like. You can just count all the elephants and say, everything else must be a giraffe. I know there are only elephants and giraffes in the field, and it could do that in a second. If you think about the problems in your business, that type of opportunity can provide value, then you're on the road to figuring out how much training a machine to understand something, and then algorithmically, then pointing that in a very narrow piece of AI to give you answer, can have value to your business. And most of the stuff we have right now is little like that. Most of the AI that we experience

is very narrow. Even if you're in a Tesla, they talk about AIH capabilities in it, but arguably, it's procedural computational automation for a lot of the things you do, I keep between the two white lines. But where the AI comes in is like one of the white lines disappeared, and I'm going to have to make an adjustment and an assumption. And then you're asking now for the machine to imply answer to you, or go, I don't know what I'm doing, and I have enough intelligence here to hand the controls back to you and make the alarms go off. I think it's a really exciting period. I think we are only just beginning to understand the answers we're looking for so that we can ask the right questions about this technology. We have some AI in Skema, but it's very narrow, and it's very specific to understanding certain visual aspects of previous design, so that we can create highly repeatable design catalogs with elements that we can use in multiple ways.

33:54
Richard
We're increasingly going to better understand the brief, the specification that's given for a building design like a hospital, such that we know that we've trained our generative design to have a first pass at laying out a surgery suite, and it knows there are minimum maximum distances for different functions. So this is where automation, some very narrow AI, becomes a design assistant to you. But the idea that the AI is just going to design a whole hospital, I think, is a little misleading at this stage, and it's not even clear whether that's really going to add as much value as you might think it would.

34:32
Charlie
That's a good point. Our machine learning is strong, our algorithms, the solvers. And then the AI is another piece over here with some of the fill in the blank and morphing, and it's going to evolve. But thanks for the example there with the elephant draft. I think that summed it up. There is AI everywhere. What I took away is that AI is the new leeches. So there you go. Here's our headline.

34:54

Richard

I wouldn't necessarily use that in a marketing campaign.

34:57

Charlie

Noted. Do a few rapid fire questions here as we look towards the end. Getting to know you more. What would you say is your specialty or gift?

35:07

Richard

I don't think I have one. I think I can honestly say I couldn't point to anything that I could be objectively measured as being the best at or that I think about in that way. I kind of always think of that. Hopefully all my 20% of being able to do something adds up to 80% of being doing something valuable. Maybe that's reflected in my career, where I've held just about every role in a software company, including being a developer. And I think sometimes the jack of all trades thing, I've had a big career, limited from time to time, where I've been told I should double down and become the best at one thing. But I don't really think about it in that way. If I was an athlete that had to be good at one thing, I like to think maybe I'd do it. I'm more of a fan of the renaissance kind of man. It's just that clearly I'm not as good or as skilled a renaissance man as those who end up in books still being written.

36:11

Charlie

No, I've seen you be an excellent speaker, teacher. You've just made some things relatable here that anyone can kind of understand. A little bit of training, some softwares, and so I think you're an excellent communicator. Obviously, that's helped you in your sales career, but it's pretty neat that not a lot of people have worked at all. I think that brings a lot to the table. So I think that it is some nimbleness. I think you're willing to learn. So I'm just giving you a few reflections on what's probably helped you that I know is helping me. So thank you. Do you have any good habits, any routines, rituals that keep you on point?

36:45
Richard

I probably only have one, and that's dog walking. I got two very energetic huskies. Means I'm walking about 4 miles every day. And I always think, as I get so I think about it this way. I like to think of if you do something, what are the things that happen because you do something. So in this particular case, I could have started by saying I have a habit of listening to podcasts, and probably in the last four or five years, I've probably listened to, I know, more than 10,000, maybe 15 hours, 15,000 hours of podcasts. But that's because I listen to podcasts on a dog walk. AndI probably walked, I figured it out once because I've got these collars on the dogs that the GPS trackers, and they also tell you how far they walk. And I just kind of did a summary of actually one of them and figured out we'd in the last sort of five, six years, we walked 8000 miles. It's like, that sounds insane if you just say it, but then you think about it over a span of time, it's like, yeah if you walk in every day that much. So During all those miles, I've just been listening to a lot of podcasts, and it's become how I get news. It definitely is how I develop some of my views. And if I'm trying to learn a new subject, that's the first place I go to try and figure something out.

38:03
Charlie

Fantastic. Across the country and back and a little more. And I know sometimes you and I have a walking meeting there. I might interrupt the podcast, but we have some great chats, too, so I love it, man. Bucket list, you've traveled, I can't remember how many countries? I can't remember. We ended up one night over at good bourbon. And just what else? Any other adventure, any other travel? You want to write a book, you want to get a certain guitar, a certain car. What's on the bucket list, Richard?

38:32
Richard

You've asked me this before, Charlie, and I know you kind of looked at me

quizzically before about this. I'm not a great believer in bucket lists. I like to be a little bit more contemporaneous and how I kind of react to the world. , I'm not saying I never have had a bucket list. And maybe as you get older, you've got less things in the bucket that you're trying to do because you've already done a lot of them. But I'd like to think in, I've always actually, from a very young age, always had this kind of philosophy that you should see wherever you are in the world, whether it's where you are for a day or where you are for two, three, four weeks because of work or you live, there is just to think about how the radius of possibilities of things that you could experience and do changes when your geographic location changes. I used to always be in the habit of when I was, particularly with Autodesk, where I was doing more than 200,000 miles a year all over the world. For a long time, I'd always tried to get to the city or place I was going to at least a day early and get over the jet lag by just walking for the whole day to as many places around that city as I could. And I've often surprised people, like, I think it was in Tokyo. And went out the next night, a couple of nights later with a leadership team from the Tokyo office, and I started telling them about a bar just down the road that I'd like to go and try because they were trying to figure out where to go after dinner, and they just couldn't understand how I knew where it was. And that's because I just walked most of the city the day before.

40:06
Richard
It's developing habits that I think you find things that you can put in. Let's use the analogy of the bucket. I think you could find things you put in the bucket by having an attitude of contemporaneous discovery. Get off your ass and just take a look around. I guess I used to. I did a lot of climbing and ice climbing and surveying of ice caps and glaciers in the arctic for the Royal Geographical Society when I was a teenager. And I had this in my mind that I was at least going to get to the south call of Everest and maybe have a go to the top. But would I still want to do that? Maybe, but I don't think I'll miss the outcome.

40:47
Charlie

Dude, I love it. You might not realize it, but you told us some things in the bucket list. Let me give you a stat. About one third of my podcast guests don't have a bucket list. Just kind of like that, man. So just know that I appreciate you sharing. All right, let's start wrapping up here. Richard. What a fun conversation. So two final questions. As you look back on your career, is there anything you wish you'd have known a little earlier?

41:11
Richard
I wish earlier on people, I would say this is probably when you're trying to decide your career, and maybe they do a better job of it as you come out of schools, and maybe it's something that's a little bit English, is that it's okay to not know what the hell it is you want to do with your life when you're 1819 years old now, were heavily pressured to try and figure that out, I think I would hope. And every time I speak to someone who's in that kind of phase of their life, I've always tried to give them permission to not know and say, that doesn't stop you trying and doing something. It's like you should be embarrassed if you can't predict what you're going to be doing 30 years later. I never would have guessed that I'd be living in California, just across Golden Gate Bridge with a beautiful American girl and two huskies when I was in basically, what was a. A small coal town in the middle of England in Shropshire. I would have. We just wouldn't have been able to predict that. And that's okay. Of course, if you have that ambition, you drive towards it. Well, God bless you. And I think that's great. I would certainly say, if anyone's listening to this who's under the age of 30 or 25, I wish someone had told me to put 5% of my salary into an s and P tracking fund every month, because everything else in life becomes easier when you're not anxious about money, and I think very few.

42:39
Richard
It's funny, they don't really teach that at schools. They don't talk to you about even just $10 a month. And it's amazing the difference that can make. But I think I'll go back to that kind of tadpole thing. I think when you look at a market and you

see a lot of people working in it. Let's just take green building, sustainability, carbon tracking, embodied carbon calculating. If we bring it back to the subject of your webcast right now, you could easily look at this and go, I'm probably a little bit late. It seems like there's a lot of people. Charlie's already been working on this for a long time. I'm not going to catch up with Charlie because he's already done this. He's made some money, he built a company, sold a company. I probably need to look for the next thing. The truth of the matter is that we're only scratching the surface in a lot of these subjects. And if you've got a great idea, and if, like me, you believe people like the musks of this world and others, particularly when you look at how we're going to create a better situation on how we're impacting carbon in the world. It's probably going to be solved with technology, not with politics. There's a lot of policy around right now, which I think is making a lot of people think we're addressing things. I'm absolutely, completely opposed to that way of thinking. I think you're probably going to address the majority of sea rise issues with technology, for example. I think it's a little bit like having your finger in the dike, what we're doing right now by addressing it with policy. And I wish more and more people would be trying to innovate and think about ways of changing the way they look at the solutions that would help overcome these issues. That's just what's been, that's just what happened for the rest of human history. It's like saying, I need to cross that river, but I better wait for the river to dry up, then you'd never invent a bridge. It's like, so there's got to be, you've got to sort of be innovative and think of ways of addressing problems and believe in them. And don't be afraid to fail. Just fail. Fast forward and keep navigating towards something.

44:48
Charlie
Innovation will do all those things. I agree with you, man. I appreciate your worldview. I really respect your intelligence, your smartness, your wittiness. Every now and again, you'll smile and tell me I did a good job, and I appreciate that about you. You're just a fun guy to work with. So I hope everyone listening has gotten a peek into this awesome career that Richard's put together, and it's had several layers to it. I like to talk about seasons and seasons of opportunity, so I

think we have a great next season together. Richard, thanks for being on podcast today. Everybody connects with Richard on LinkedIn. Make sure you check out Skema AI, be following all the great work we're doing, and listen next week. Richard, thanks for your time today.

45:32
Richard
All right, good to chat. Thanks.

45:41
Charlie
Thank you for listening to this episode of the Green Building Matters podcast@gbes.com. Dot our mission is to advance the green building movement through best in class education and encouragement. Remember, you can go to gbes.com podcast for any notes and links that we mentioned in today's episode, and you can actually see the other episodes that have already been recorded with our amazing guests. Please tell your friends about this podcast, tell your colleagues, and if you really enjoyed it. Leave a positive review on iTunes. Thank you so much. And we'll see you in next week's episode.