Inside Data Centre Podcast.

WITH ANDY DAVIS

Title

Alistair Law, Founder at Vertical Meadow: Living walls on your Data Centre

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Transcript

This is the Inside Data Centre podcast.

We talk to the people who power the data centre sector to give you insider info on everything happening in DC today. He's your host, Andy Davis. Welcome to the Inside Data Centre podcast.

Andy Davis (0:14 - 0:36)

Today I'm joined by Alistair Law, founder at Vertical Meadow. Good afternoon, Alistair.

Alistair Law (0:37 - 0:45)

Afternoon, Andy. Great to be able to speak on this podcast, really excited by the data centre world, which is fairly new to me. So yeah, very exciting time.

Andy Davis (0:46 - 1:06)

Yeah, no, it's great to have you on. And as we were saying before we come on, I love talking about innovations that are maybe not known to everybody. And I think what you're doing is exciting and it's a change to the industry.

So keen to share a lot more about that. Before we start, do you want to give everyone just a quick introduction of obviously who you are and what your role is at Vertical Meadow?

Alistair Law (1:07 - 2:17)

Yeah, so obviously my name is Alistair Law. I'm the founder of Vertical Meadow. And Vertical Meadow is actually a spin out of Arup, which I'm sure many of your audience kind of know and actually a place that I've worked for probably 20 years of my life.

So, and I guess, yeah, I mean, my background is a facade engineer. And I guess what we've developed is very kind of, for me, addressing a fundamental problem with living walls on the market. And so that's where kind of Vertical Meadow came out.

And I've spun out of Arup now. And yeah, we're getting lots of excitement from the data centre world because we're kind of seeing these, I see them as huge opportunities for nature, these data centres. And obviously you've got to cover it with something.

And I mean, quite importantly, nature and nature recovery is very high up on the political agenda now and as it should be. And we're kind of, we're saying actually, the external part of a data centre is just a great opportunity. And they're often working in the fringes of kind of our cities.

And that's really topical at the moment. And so I'm sure we'll talk later on in the podcast.

Andy Davis (2:17 - 2:36)

Yeah, definitely. And I would say that if we're going to build these facilities, which we need to, we want to do the best job we possibly can. And that's where innovations like yours come in.

Before we go into more detail on that, do you want to just give a quick history of yourself? I love finding out how people started their career and then how you first stumbled across the data centre sector.

Alistair Law (2:36 - 6:34)

Yeah, okay. So yeah, no. So my background actually is a structure engineer, was a structure engineer in Arup for a while.

And although I kind of love a good calculation, I love kind of optimising stuff. One of the things that kind of jumped out of me and led me into the world of greenery and nature was I was dealing with something that wasn't alive. And often that people, the architect would cover up with stuff.

And I kind of felt that I was missing the fundamental kind of human point. And more recently, kind of the importance of nature. And yes, I still do a bit of consultancy work with Arup and working on some really high profile projects with this as a facade engineer.

But my passion really is about kind of bringing nature into our cities. And I kind of just said, well, unless we fundamentally shift the system from how they currently are, which is a load of pot plants on a wall meant to look green all year round, but actually are not fundamentally giving back to nature. Then to be honest, they're a bit pointless.

And also there will always be marginal. How do you justify? It becomes a greenwashing exercise rather than a real functional greenery.

So yeah, my role in Arup has gone from being a structure engineer, moving into the facades team, becoming one of the Arup facade leaders. And then kind of coming up with the idea, actually, of this kind of greening and Arup ventures invested in it. And it really was about Arup putting his money where its mouth is.

It's like they talk sustainability, but actually let's do it and make it happen. And that's, I guess, probably where I came to. It was in mid COVID where I decided I would take the plunge from my Arup world and say, actually, I want to focus my attention on nature and bringing nature in a new way.

And I kind of love the hands-on bit and the hands-on delivering part. And as our team would say this morning, on the wall behind me, there was this amazing hummingbird hawks moth. And most people, it's just another moth.

But anyway, this moth looks a bit like a hummingbird. It flaps its wings faster than anything I've ever seen. And it's, dare I say it, that delight in that kind of insects in that kind of natural world, which I think we've lost.

And fundamentally, what we started doing was getting approaches from data centres who are obviously having some acute problems with getting planning. And obviously, today, the government has announced the kind of green belt, grey belt planning,

which might open the way to some very large data centres. But again, I heard people on the radio this morning, and it's, if it's done the right way, so yes, we're open to the green belt and the grey belt opening out.

But it doesn't mean you could do anything in that. And that fundamentally means we need to address the nature crisis. So I think that was it.

And there was a house builder on, and they cited some really good examples of where they did that. And I think that's where the data centre world can really lead. This is, yeah, we do have some kind of, I guess, issues on energy and use of energy and how that's managed.

But fundamentally, this doesn't need to be, this can be an opportunity for the site, not just a blight on kind of the area. And I think actually doing greening in what we see as an authentic way, building on natural meadows. That's what Vertical Meadows says in the name.

We grow native wildflower meadows vertically. We're doing that across Europe at the moment. And we've got lots of approaches around the world to bring our system.

But yeah, it really is about, for me, kind of a missed opportunity if you don't do something. And the costs don't have to be high if you get it in early. And that's, again, the facade engineering is like, how do we integrate this in your existing cladding?

So you're not building effectively two bits of two walls, just build one and kind of make that more useful.

Andy Davis (6:35 - 6:58)

Yeah, fascinating. And I guess it's an opportunity for the data centre to be a bit of a leader, like you said. And it is a sector that's full of innovation.

Sometimes it talks more than it does. This is an opportunity to actually, we're talking very large buildings a lot of the time. So doing it on a scale really gives that opportunity for the biodiversity, I would assume.

Alistair Law (6:59 - 8:43)

Exactly. And to be honest, green roofs are kind of great. And I mean, they should be used where possible.

But you've often got quite lightweight roofs on these buildings. And so the vertical offers a kind of another dimension, which is also very public. A green roof, you can walk past, you can walk through the city of London, you wouldn't know that half the buildings have got green roofs.

But if you suddenly see it on the walls, you're like, actually, this is them doing it. And there's no reason. I mean, to be honest, as you said, these sites are kind of football pitch scale some of the time and multiple football pitch scale.

So to us, that's huge amounts of areas of wildflower meadows. And I just wanted to drop a stat in there, but we've lost 97% of the UK's wildflower meadows in the last 100 years. Unless we start kind of putting back and actually kind of cherishing them and kind of understanding them.

And I see our role as both educational in terms of getting people confronted with nature again, and kind of understanding that those weeds that we trampled on are not weeds, they're actually pretty useful. That actually things won't change. We'll just, we'll turn, we'll have these sterile living walls, which kind of don't really do much for nature.

And that's good for no one. And it's not gonna meet the regulatory requirements required because basically all buildings now in the UK need to have a biodiversity net gain on them. So there is some clear, there's a clear driver for people to do it.

And yeah, I think that's the opportunity really would be the data centre world leading the way with their real estate. And we're starting to have the chat with a lot of the majors actually who are very excited about this opportunity.

Andy Davis (8:44 - 9:05)

Yeah, I was gonna ask that, how it's been perceived by the industry, because again, the scale, I guess, is probably a bit of a change to the standard, you know, like building it on a smaller wall in a city is very different to building, like you say, the significant scale wall on data centre. So I just wonder, what's the perception been like from data centre organisations?

Alistair Law (9:06 - 10:04)

So I think there's a bit of a shift in the world. I mean, typically, I mean, there's the cities where the likes of Frankfurt have been kind of mandating it for actually a while. So there are places that it's just kind of a go-to, you have to do it.

But I guess previously it was very much about, okay, we've got to do a green wall, how can we do a green wall? Whereas we are starting to have the chat, we've met with one of, there is biodiversity leads in these large data centre organisations. So they're starting to put people in place who actually are kind of, they've got a mandate to create change.

And I think that's where we're seeing the shift is. Beyond it was kind of like, okay, we've got to deal with our cooling stuff. We understand that.

But actually the kind of the greeny bit is just a bit of, it is to get it through planning. Whereas we are seeing that some of these big organisations are starting to place nature in their strategy beyond just going carbon neutral.

Andy Davis (10:06 - 10:38)

Yeah, and I think it's really important as well from a community perspective. Again, like we were chatting before we went online about, like you say, the government's announcements today and those large facilities that we all know are in planning in the home counties in the UK. They are largely on that grey belt area, really.

You could argue whether its green belt or not, but they're in that grey belt area. And the challenges will be, oh, we don't want a large shed like building on that land. Whereas if it was covered in greenery, that could be a different conversation.

Alistair Law (10:38 - 12:55)

And not just covered in greenery. I mean, honestly, like we've been following, and it was interesting, the head of the wildlife trust was on the radio this morning talking about it. And a lot of that land is depleted anyway.

It's arable farmland that has been kind of being covered in sprays of different sorts for years. So it's not very rich. So the idea of putting like a meadow and a proper native meadow back in these areas actually could be a massive enhancement of the existing scenario.

And I guess, and to be frank, if you could embed this into the landscape around it, then it becomes kind of something, as I said, that gives back rather than takes. And I do believe that's kind of the issue we have is that we're so used to kind of, or the built environment world, we've kind of tried to sterilise it because it's easier. And therefore we've kind of given a perception to kind of people that kind of doesn't really matter.

We'll do a bit of that. And we'll do a bit of kind of maybe give you a bit of some sort of social housing or whatever. But that's kind of minimum requirements.

Actually, we need to go further. And actually the government approach is all about nature recovery. So it's not okay now to do no harm.

You've now got to give back. We've gone past that step. I'm a bit like climate change.

It's not about going carbon neutral. That's fine. We need to go beyond that to actually impact things.

And yeah, we're kind of excited by the opportunity, honestly. If you, I mean, we hear there's a green wall. Well, we know there's a green wall out in Brent, which I think is 6,000 square meter green wall, the largest in the world.

But if that was everywhere and all, that would be amazing. The excitement is also how it embeds in, if there's any nature reserves and other kind of landscapes around it, that this is not just let's stick a bit of greenery. It's let's do a bit of greenery that speaks to where that's the community around.

But also I see community as multi-headed and it's not just humans and us in that community. It's also all the kind of flora and fauna around it.

Andy Davis (12:56 - 13:14)

Yeah, and it's interesting you mentioned nature reserve because if, and you probably know this, but if you look at a lot of the large scale developments now globally, they are on such significant size of land that part of the development is the implementation or the introduction of a nature reserve. What that looks like is, again, different depending on where you are, but it's in the planning now.

Alistair Law (13:15 - 13:57)

No, exactly, and to be honest, we're speaking with a data centre for exactly that. It's turning a site because it's a sensitive site. And obviously you've got to make sure, I mean, yeah, I mean, I think planners are fundamentally reasonable people.

So I think there's got to be a give and take back to it. And obviously everyone's wanting to do bigger and larger, but I think the only way you can do that is get the trade off right and actually do greening in a, I'll go back to the word authentic, useful kind of, we often in like the industry we use sort of, well, you'll hear about nature-based solutions, but also this is what we call green infrastructure. And infrastructure means that it's functional rather than decorative.

Andy Davis (13:58 - 14:17)

And I guess we're talking about large scale facilities as well. And it's easy to do that when you talk about data centres, but also those small inner city edge type facilities, which are going to significantly increase as the use of centralised data increases. So it's a great option for that as well, if you've got a small facility on the side of a road, it might as well look nice.

Alistair Law (14:17 - 15:23)

Exactly, and to be honest for us as, I mean, like for us as green wall providers, they're just simple boxes. It's like perfect. There's not too many windows, there's maybe the odd vent coming through, but actually it's a kind of fairly economical way of bringing greening on actually.

If you, I mean, when I look at these complex city buildings, I'm like, wow, that's difficult. But actually a data centre, you've got huge areas which are really simple. So again, the cost thing doesn't need to be a barrier.

And what we've designed is a kind of a range screen. It's just like a standard cladding panel. And so you guys are putting these on

your data centres anyway.

So why not just swap it out for one that is a bit thicker, not much heavier, and you've got a living wall and you've got this kind of lush kind of habitat for insects. And it really, I mean, to be honest, today is also the first real warm day we've had in a while. And I can see that.

I can see the bees are literally out and they're teeming on all the flowers behind me. And that's quite exciting actually. I kind of, well, it brings a smile to my face.

Andy Davis (15:23 - 15:56)

Yeah, the sun is out in the UK for the first time in 2024. In the middle of July as we talk. The other point, final point on this I wanted to talk about is obviously the importance of biodiversity.

It's very clear you're very passionate about it. And that's why you've done what you've done and well done for doing it because you've obviously followed your passion. But how important is it for biodiversity that we do things like this?

Whether it's related to a data centre or another building, just the importance of implementing products such as this?

Alistair Law (15:57 - 19:28)

Well, I think, I mean, it's interesting. Biodiversity, REBA, pretty much everyone has declared a kind of a global crisis. We've lost 70% of the world's biodiversity since 1970.

And for me, that's a staggering number. And that's mainly actually in inland spaces where you've got very fragile, often kind of marginalised habitats. So kind of things can't kind of connect between kind of other kind of abundant habitats.

And I think that's where buildings and kind of these areas can be kind of, they can become mini parks, but also they become what we call wildlife corridors through kind of through the landscape. And the bug life have set up what they call the bee lines. Across the UK, they've mapped out these lines for bees.

And this is really about thinking in a very much, I dare say, a networked approach, rather than just like we're going to do something on our little data centre and that's great type thing. It's actually saying we as an industry and we as the built environment are actually going to kind of create multiple stepping stones. And as you say, those little, those centres that are appearing on the outskirts of cities are kind of vital stepping stones in and out of cities and around cities.

So I just see this as a really about creating kind of lots of mini and some cases mega parks, whether you look at the scale of what you guys are doing. And we can't ignore it, actually. I don't think as, I think we're kind of burying ourselves in the sand that business as usual and building as usual can just continue as it is.

I think, dare I say, I'm sure the government will be pushing this kind of agenda in the UK. But globally, the EU laws and biodiversity have just been implemented. So this is kind of moving fast across.

I guess it'll be Europe, UK often kind of driving that. But also it's these private organisations. I mean, all the big data centre guys have got big nature commitments.

And so they're part of this. I say they're bigger than many countries as well. Some of these come in terms of GDP terms.

So they can have real impact. And I guess choosing how they develop is going to be quite key. And they've already moved to renewable energy.

So I just see this as a path to kind of nature positive. So, yeah, no, I think biodiversity, we've been focusing on carbon for such a long time. But the horizon for biodiversity is the same 10 years because it's the same flip of the same coin.

It's the other side of it is basically if we destroy in terms of carbon, we're fundamentally destroying nature, which will destroy us ultimately. So, yeah, no, I'm quite passionate about that. But I'm also quite, you can be doom and gloom, but I see this hope and I see it's about taking people on a journey.

And getting them to realise that all of us can do something, even on a small building, even on a garden, even all of that, all of these little bits matter. So don't think, oh, it's the problem's bigger than me. It's not.

We can all like even you having us on today is an exciting opportunity to get the message out.

Andy Davis (19:29 - 20:04)

Yeah, similar conversations when I talk about energy use and people say that you can just turn your light off. You can all have an impact on it. You can't change the world, but you can be part of the change.

That's the important point. And I think with things like biodiversity, sustainability, carbon, et cetera, it's generational as well. The people coming through now, the younger generation are so passionate.

They want to create change and they're going to drive it. And that's why you're seeing governments change tack. That's why you're seeing these big organisations change tack because the consumer wants something now.

They want to see something being done.

Alistair Law (20:04 - 21:00)

Yeah, I mean, for me, this is it's a cultural thing, to be honest. And I think, as you say, the younger the younger guys have got they've got I mean, it's in them. They've learned this at school.

They've kind of been and they've been following their set. We have we post rationalise these recent heat waves and all these things by saying, oh, you remember, I don't know, 10 years ago, it got really hot. And therefore, OK, yeah, things are bad, but maybe not that bad.

Whereas these guys are seeing these kind of first kind of the first time that kind of we're getting these wildfires and it's quite impactful. And so, yeah, no, I believe I really believe that it's it is something that's going to change. And hopefully, hopefully we can't rely on this new generation just to change it because there's a load of people like us still in the system who need to get it and help give a helping hand to the enthusiasm.

Andy Davis (21:01 - 21:26)

Yeah, 100 percent. Before we close up, just a couple more sort of quickfire questions. And I'll let you go and enjoy the sunshine in the UK before it goes.

Before you never know. Yeah, we talk quite a lot about obviously what you guys are doing. And I know you're fairly sort of new to the industry, so to speak, to data centres.

But what do you see in this one? Quite interesting. Your perception really are the biggest challenges that we're facing in the industry right now.

Alistair Law (21:28 - 24:16)

So I think the cooling bit is an interesting bit. And I mean, from a living wall and actually a facade engineer, if we can get the landscape to help. So we've been measuring sort of three to five degrees cooling around a wall.

We're collecting data on that. So we see, obviously, if we could help with the cooling there. I do think it's social, to be honest, though.

I mean, if you see the whole planning process, it's about communities. And for me, it's being a good partner in the communities. And I think if that message can come with kind of nature and kind of giving back, then I think a lot of the ills associated or kind of pushed towards the data centre world can then be, it's all about communication.

And communication comes in both what people are saying in the press, but also what people are doing. And I think we started right at the beginning of this conversation about wanting to do something. So I think as soon as kind of people and kind of the data centre community really start doing it and kind of then impact, that people will see that impact.

And the physical manifestations of data, because that's the other thing is everyone, we're on our phones. And then we might talk about all the energy usage of data. But fundamentally, the manifestations are the data centres.

And they're starting to appear in the middle of our cities. And to us, you've got to control that and kind of make sure the narrative is right. From the depths of all the hard work that you guys are doing on managing energy and kind of using renewables, but also to how it projects itself.

So they're often black. They're often hidden from or trying to hide. My view is don't hide, just be proud and do something useful.

And I think that's, for me, the huge opportunity there is actually there could be all these big companies could just be known for their kind of impact on nature. And that can extend way beyond just their data centres. But the data centres are kind of the immediate manifestation we're seeing.

So yeah, I think that will really help them. It will really help the kind of the natural environment as well. And ideally, yeah, a good bit of stewardship from the industry would be great to see.

And I would love to meet more biodiversity people from all these data centre providers. I know they exist. I mean, I'm keen to meet you because I think it's about kind of, yeah, all working together on this.

And maybe even having an industry nature body. I would love that to be a kind of a thing. But actually, yeah, how does the data centre world really kind of address nature in a kind of impactful way?

Andy Davis (24:17 - 24:37)

Yeah, some really good points. I think perception is a huge challenge for this industry. It has been for a long time.

It's getting much better at it, but still so much opportunity. I couldn't agree more with you on that point. And shout out to all the biodiversity people.

You know, if you're out there, reach out. Let's create a little community. Happy to facilitate that one.

No problem.

Alistair Law (24:37 - 24:39)

That'd be great. Brilliant. Well, thanks.

Thanks, Andy.

Andy Davis (24:40 - 24:47)

That's all right. Just one last question before I let you go. If you could give one piece of advice to anyone looking to work in the sector, what would it be?

Alistair Law (24:49 - 25:49)

Well, I think I do think, I mean, understanding and harnessing the kind of potential of the sector to do good and kind of always focusing on that kind of people. Back to the point about all of us can do something, but actually try and have that impact, whether it's nature, whether it's energy or whatever it is. And you talked about innovation.

Don't, I mean, just embrace it. If it fails, it fails. But if we don't fail, then we don't move on.

So take risks, really do kind of push yourself to the limit and make sure, yeah, passion for me and creativity is what drives the world into new things. And bring that in spades if you want to enter this industry and really kind of, yeah, bring your personality and really go for it. There's a lot of, there's a lot of potential there.

Andy Davis (25:50 - 26:05)

Yeah, I think passion is so important. And sometimes you learn that too late in your career. Yeah, if you, and it's easy to say it when you're getting older, but if you could work that out early in your career and you do find that passion, it does help.

It helps you move forward.

Alistair Law (26:05 - 26:27)

It opens doors. Everyone's, and yeah, I had a colleague who used to talk about concrete in a way that no one would ever talk about concrete. And it was just great to hear.

And I think that's because there was a real kind of excitement. And I think if you can bring that to whatever job you're going to do, you're going to have enormous impact, enormous impact.

Andy Davis (26:28 - 26:49)

Yeah, definitely. And also like the innovation side of it, you know, ideas like what you're doing. We need new ideas in this industry.

And the industry historically was closed to new ideas. In the last few years, it's really opened up, largely out of the growth and necessity. And yeah, it's getting so big that we can't keep it as a closed shop anymore.

But it's important that we bring innovations to the industry as well.

Alistair Law (26:50 - 27:19)

Yeah, no, exactly. And I think your point, I mean, like about the kind of the old farts in the kind of industry is like, actually, the young people have got such an opportunity of changing behaviour, challenging us. And I guess I'd encourage them also to challenge us in terms of what we think is normal.

We've post-rationalised a lot of things as OK. I think now we've got to be kind of pushed again, because otherwise things don't move on.

Yeah, totally. And a lot of us are open to those ideas as well. I know some aren't, but a lot of us are.

So don't feel like you can't bring those ideas. The ones that aren't open to those ideas won't be around for much longer. So I wouldn't worry about it.

Yeah, no, as you say, I mean, I'm really optimistic. And I kind of love the chats I'm having with people about nature, people who I never thought cared. Everyone cares about nature.

Everyone goes in their garden. Everyone appreciates being in greenery. The breathtaking views that you see across Scotland, across kind of the UK, that is in everyone.

And so, yeah, I kind of see it as quite exciting if you can kind of harness that energy and kind of passion people have about the natural world. I mean, across the world, it's consistent. And so, yeah, I think that could be the driving force for change.

Definitely, and a great way to end the podcast.

Brilliant.

Thanks for your time. Love the conversation. I love your work.

Where can people find out more about you and about your organisation?

So I guess first step is you can come and see us on verticalmeadow.com. There'll be my number on it if you need to give me a call. Yeah, I'm the founder, Alistair Law.

So you can ping me directly an email and we'd love to hear from you. Yeah, we've got a load of projects around central London if you want to come and see them as well. We would love to sort of take people on a journey.

And yeah, we'd love to explore some of your projects.

Yeah, and we'll put the website in the show notes. But keep up the good work. I look forward to seeing your walls on many a data centre around the world.

That'd be great. Cool. Thanks a lot, Andy.

Have a great day.

Andy Davis (29:04 - 29:04)

And you.

Alistair Law (29:05 - 29:09)

Cheers. Cheers.