

Paul: [00:00:00] Joining me for some retail therapy today is Luke Hargreaves, Global Sustainability Business Advisor at AWS, which provides cloud services across government education, not for profits and healthcare. Luke has worked at AWS for the past five years as a global advisor and solutions architect. Prior to joining AWS, he was working with the United Nations on the Sustainable Development Goals. He works with businesses and governments to accelerate their transition to sustainable business models through the use of technology. AWS is the proud sponsor of our season three podcast, which is taking a deep dive on sustainability and the climate challenges that lie ahead for businesses and how they're adapting. I'm delighted to have Luke with me today to talk about AWS and Amazon in general and the role they're playing in the sustainability space. Luke, welcome.

Luke: [00:00:55] Thank you so much for having me. I'm really excited about this.

Paul: [00:00:58] First of all, AWS is a subsidiary of Amazon who we're all familiar with, the largest retailer in the world. In 2019, Amazon co-founded the Climate Pledge, which is a commitment to be net zero by 2040, and more than 300 businesses have signed up. Tell us about the sustainability goals at Amazon and how you see the role of big corporates and leading the way when it comes to climate leadership?

Luke: [00:01:23] Yeah, absolutely. And I guess we need to understand sustainability and climate leadership as a whole. Obviously, the most pressing part of it is the climate leadership in when we were understanding sustainability, I would say having a look at the Sustainable Development Goals number 17 is all about partnerships. And so the role of big corporations around the world is to facilitate these partnerships. And that was one of the biggest functions of my previous role was to try to spread out the influence. I guess one of the things that that Amazon does really, really well that I really enjoy about working here is we think a lot about scale. And so whenever we think of a new idea, we think about how to scale that. And unfortunately, the only way we can do this is with the help of everyone around the world. So what I would say, I guess, as a second corollary to that, is that big corporations are able to to affect change in a more. Might sound like an oxymoron but more rapid movement than potentially some governments are. And that tends to lead the way and pave the way for decisions. And interesting, interesting, I guess, way to understand it is in, for example, Europe, a lot of the government legislation has caught up. However, in Asia where we are, we're still we're still on that verge, which gives us a great opportunity here.

Paul: [00:03:21] The era of the big, the era of the big audacious goals has passed. Everyone is working on sustainability now, and what sets companies apart is how they deliver on their vision and goals. How is Amazon going about the execution of its targets? Because you have a

massive logistics network, you have ships, you have planes. So it's quite a large carbon footprint.

Luke: [00:03:42] Yeah, that's that's very true. We have over 60 subsidiary companies. Obviously, AWS is the one that I work for. Underneath underneath Amazon, there's a pretty consistent way that we deal with delivering on, on, ideas in Amazon and it's called working backwards. Now we have our own internal, internal culture around working backwards. So we set a goal and then we have a set of strategies that we use in order to fulfill that goal. But the important thing is to set it in the first place, and that's the thing that working backwards gets, gets us sort of done. And we have a number of outputs from working backwards. So things that we call press releases if we haven't heard internally. So Amazon does a concept of what a what a press release would look like when this is finally done, which is one of the reasons why the climate pledge was created. It's basically imagine if we could hit our goals ten years ahead of the the Paris Agreement, which was the climate pledge. So 2040 net carbon zero. And that's the way that Amazon will work. We will set an ambitious goal. And then the the way in which we achieve that goal is, is working backwards from that. So how can we hit the goal that we've set for ourselves?

Paul: [00:04:54] Interesting. Now, look, it's one thing, as you know, to announce a plan, but it's another to achieve the targets. What do you think are going to be the biggest challenges of your climate pledge?

Luke: [00:05:04] Yeah, I think I think the scale of it. So getting getting companies on board and we currently have over 330 signatories, as you alluded to at the start. But it would be getting a lot of the companies on board early on. Now, this has changed a lot recently. So what I used to do previous to my role is I'd go out and talk to companies about why joining something like a climate pledge would be a great thing to do. Now it's it's starting to snowball. I'm sure you've you've noticed over the last few years, this this topic has become more and more important. That's because it's something that is getting closer and closer. I think a pretty sobering statistic that someone said to me one time is the year 2040 is actually closer than the year 2000 now. And so we really need to get a move on. So in answer to your question, I would say, you know, the things that we do is is to, to, facilitate the spread out into the community about how we can get, get these targets under control.

Paul: [00:06:05] At the ARA, we released a net zero roadmap which outlines the investments and actions that retailers need to make to achieve net zero emissions. The top item on that pathway is data driven decisions, and looking at AWS more specifically, that's a lot of what you do. So how do you see the role of data in helping to achieve sustainability goals?

Luke: [00:06:26] That's another great question. Data is actually, is fundamental. There's a large data culture not just in Amazon and us, but around the world. The way the data is being treated through companies is almost like it's the new resource, sort of like data is gold. If you've probably heard that, you've heard that saying before, from a sustainability point of view, the way that works is most well, a lot of companies I'm talking to are having trouble even just base learning. So even understanding where to even begin. Now, the only way they can begin is having a good visualisation of the data from their company and then matching that data to a set of a set of global standards. If you do a search right now on sustainability standards, you'll find about 500 different results on that search. However, there are some pretty common themes throughout sustainability reporting. I would say if I had to choose a top three set of frameworks to align your data to, I would say SASBY, which is which is more of an accounting focus, which is financial GRI, which is an overall focus on materiality and the Science Based Targets Initiative, which is a way of measuring your progress once you've got those, those baselines. So I would suggest data collection and aligning to those standards would be probably the best bet right now.

Paul: [00:07:50] What are some of the things that you're looking at to make the cloud more sustainable?

Luke: [00:07:55] Well, that's a that's a that's a large, large sort of job that we have here at AWS. We call that our Green Cloud Initiative. And what that is, is a number of factors you can imagine. A data centre has a number of ways in which we can improve efficiencies. Obviously, the biggest gain you're going to get is renewable energy. Hence we have this goal and this is not just for our data centres. This is across Amazon, the entirety of Amazon, of hitting 100% renewable energy by 2025. Now that means obviously that we need to be investing and doing doing agreements for renewable energy sources around the world. We currently have over 15 gigawatts of renewable energy capacity that powers approximately 65% of our operations, which is fantastic. So we're on our way there now from a data centre point of view, that's a lot of the a lot of the issues that we're talking about. So when we have clean energy coming through that, that what that means is there's not what we call the carbon intense set of energy coming in. So the next question we have to work out is how much of that clean energy is going direct into the compute workloads and how much is getting wasted on things like cooling or, you know, just poor circuitry or poor, poor transmission of energy. So there's a number of factors we use for that. And then another way we would do it is working out how dense our compute workloads are. A standard data centre will run probably about 20% capacity just because it needs to cater for spikes in user, user requests. So say at 6:00, someone gets home and they want to order a pizza or something like that that's going to result in a spike. So most data

centres run at around 20% capacity, which is a lot of wasted energy. As you can imagine, AWS data centres run on average around the 60% capacity simply because of the amount of time we've been running for. And we have a number of algorithms that tell us where we can place workloads. So the combination of those three factors, when you put them all together, we're actually able to run our data centres at around 80% lower carbon footprint than a standard enterprise data centre. And we're pushing that further and further.

Paul: [00:10:16] How important is transparent reporting when it comes to businesses being able to measure success against their sustainability targets?

Luke: [00:10:23] It's critical. Transparent reporting is well, I mean, it's it's a case of trust, right? There's, there's, a sentiment from the financial institutions and then there's consumer sentiment as well. There was a McKinsey report that was done in, I believe, in 2018, around consumer sentiment, if I was to focus on that through the generations. So, for example, the baby boomers were asked how much sustainability factors into their purchasing, for example, and the survey came around 37%. Then it went to to Generation X and that pushed up to the 40 around 48 to 49%. And from all the generations past Generation X, it was more than 50%. And so as a business, it's really important for you to to have a handle on this, particularly as we get closer and closer and we're starting to see the effects of climate change on our industry.

Paul: [00:11:19] What are some of the emerging digital transformations that you think are really going to shape the way businesses achieve their sustainability goals? And maybe what role is AWS playing in this regard?

Luke: [00:11:31] Yeah, so when I see it, I see it in terms of two things we talk to, we talk to our customers about either cleaning up your own backyard, or creating an innovative new solution from a sustainability point of view. So if we focus on the latter innovative new solutions, then it's broken down into vertical or industry. So let's say we we talk about a manufacturer there. Their primary sort of concern is around supply chains. And that sort of hits on the S part of ESG, the environmental, social, government, governance. The S part is around social. So a lot of the time we'll be talking about supply chain transparency just so they're able to make sure that each part of their supply chain, there's a transparent transaction that is recorded and is not repudiated. So we're starting to see the use of of encrypted ledgers in that sense. So blockchains, for example, or even just, you know, just regular encrypted ledgers in in supply chain management, which is a huge step forward. I find also we see the use of the Internet of Things, IOT devices in energy production, for example. So Vector Energy, for example, in New Zealand are using IOT devices to measure where electricity is coming from, so consumers are able to make better choices.

Also, it means that as more and more renewable energy, energy plants come online, they can start favouring those more specifically and start phasing out the carbon intensive operations.

Paul: [00:13:02] Look, my final question, Luke, do you see opportunities emerging in the tech start-up space and potential partnerships with businesses to help them achieve their sustainable sustainability goals?

Luke: [00:13:13] Yes, absolutely. I think start-ups have a critical role to play in in this sort of movement to a circular economy. The reason being is most of the start-ups are actually born in the cloud, and so they'll be using cloud technologies from day one. They're already past this sort of migration phase. So they're able to accelerate a lot quicker than some of the more established businesses in this sense. It's also a case of connecting these start-ups with the enterprises that have these sustainability based challenges and then making sure that they work together to achieve the goals. Coming back to the theme of scaling out and the only way we can do this is by everyone working together. So start-ups have an amazing, amazingly critical role to play in this. As a matter of fact, a lot of them, because they are, you know, unhindered, have managed to do quite a lot in a very small, short space of time. There is a community here in Australia known as Climate Salad and they get all the start-ups together in almost like monthly. And during that time the start-ups are able to pitch their sustainability based ideas and then investors are there as well. So it's a great way of getting that information out there.

Paul: [00:14:25] Great conversation. Luke Hargreaves, thank you so much for joining us on retail therapy to chat about all the things Amazon and AWS are doing in the sustainability space. Congratulations on the work you've done and for your leadership and sustainability and all the best for the future.

Luke: [00:14:40] Thank you so much for having me. Really enjoyed it.