CR096

Sustainable Environment cross Government with Liam Walsh and Paul Mukherjee, Defra

Capgemini

CR096

Sustainable Environment cross Government with Liam Walsh and Paul Mukherjee, Defra

Disclaimer: Please be aware that this transcript from the Cloud Realities podcast has been automatically generated, so errors may occur.

[00:00:00] To be honest with this will be the first time in my life that anyone who said to me that I'm too quiet and it's recorded.

Welcome to Cloud Realities, an original podcast from Capgemini and this week a conversation show about sustainability, what's going on cross government in the UK and how AI fit into all of that. I'm Dave Chapman and I'm Esmee van de Giessen and with us today to talk about that. I am delighted to say we've got Liam Walsh, chief architect at Defra, and Paul Mukherjee, the CTO Defra.

Hi guys, how are you?

Hi Dave. Hi. It's me. Good to be on.

Very nice to see you. Uh, the last time we saw you guys, we, we sat in a darkened room in reinvent, just before Christmas in 2024, I think. And it's like now. [00:01:00] I dunno, what is it, three months later or something like that. And it feels like yesterday, that conversation that has to be said, you had, have you had a good Q1?

Yeah. I can't complain. Although just going back to that conversation in December, I'm still waiting to see Liam's tattoo. How did it go, Liam? How big did you go

with that? I think I, in the end, I've bottled it and I don't have one, so there we go. It's always this year. It's always this year. Um, yeah, I, I, I don't think we, you know, this, this court has been very busy because of course government runs April to April. Yeah. So we're in the middle of a load of stuff on, on, on next year's finances. Yeah, of course, of course. Brilliant. Will, it is great to see you. Thanks for rejoining us now Ez. This is gonna be interesting.

Yes. We haven't got Robert with this day. We looking forward to it.

Yeah, me too. So our, our producer is joining us on Mike Marcel, how you doing?

You all right? Yeah, I'm fine. Thank you. You guys doing good? Yeah.

Now, what's confusing you this week, Marcel? [00:02:00]

Yeah. You mentioned I must be com be confused, but, uh, basically I'm not, normally. That is relatively natural, isn't it? Yeah. What? Yeah, yeah. But I, I'm, I'm overall not confused. And maybe that's confusing me that I'm not confused.

So, um, I, yeah, it's, it, Robert's always confused, but I'm not, but my struggle, it's more not a confusion, is that when we see the great things around us with, with, with big events and everything is coming to us with ai mm-hmm. Um, I'm really. Sort of struggling with the slow pace that the current economy and and organizations are, are, are doing.

If, if you ask for a passport, if you are in a process, how old fashioned, all these sort of processes are compared to what we see on YouTube, on Facebook, on, uh, walking robots, uh, et cetera. So, so the difference between what we see and really what we get. [00:03:00] Every day at the garage, when you make an appointment with your, for your car, it's so slow.

It's the speed of adoption, isn't it? Oh, it's the speed of adoption is radically behind the speed of innovation at the moment. Yeah. And the, the thing that occurs to me is that the delta between those two things gets bigger.

Yeah. The gap. Yeah. Yep. Yeah. Yeah. Because the speed of innovation, I think everybody's been taken aback by the acceleration over the last couple of years, haven't they?

I thought cloud went fast and actually cloud looks like Snell's place in comparison to what's going on at the moment.

Yeah. And, and compared to cloud, I think the whole discussion started at, uh, 12 or 15 years

ago. And if you look at the, the implementation of all the big, uh, enterprises with cloud, it's still not there.

They're not, still not native from cloud. And that's 12 years. And, and now with AI in the last two years, the whole sort of, everything exploded. And, and, and still. I don't see it in, in, [00:04:00] in, in the daily things that I'm doing.

So, uh, you're right on the cloud adoption thing. I mean, a lot of organizations have got stuff on the cloud now, whether it's all of their stuff or.

Partially, but there aren't that many organizations yet who fully Cloud Native Eyes their ways of working gone product team, you know, that kind of thing. Um, and I wonder, so I don't know what the AI centric or the AI native organization's gonna look like, but I wonder if we're gonna see like a leapfrogging of, of.

You know, the cloud native motion might just, just actually become something that some organizations can skip. And I think particularly in the mid-market, which you know, organizations, you know, that Gartner would define as between like 1,000,000,00 billion in revenue. I. Often they hadn't even really started their cloud journey, so they might just kinda leap directly into the world of ai, I think.

Yeah. Yeah. And if, if people decide to do the AI step and, and, and it's on board level and everybody [00:05:00] is seeing the opportunities, it, it's sort of a boom rung effect that, that you see that people are not on cloud and, and the data is not in order. So, so it's back to basic. It's, uh, the wish is there, but it's not possible to do it tomorrow.

So it needs proper infrastructure, uh, sort of updating and, and that take years.

Well, you know, Esme Marcel didn't do too bad there and I, no, I'm just, no, this is made a clear point, relatively articulated. That's confus me now. Now you're leaving me with a, you know, a lot of confusion about like, unsettled. Are you feeling like unsettled and a bit strange? Strange. But usually he makes all kinds of different noises in the background on the most unusual moments. And I would tell no, it's just. Yeah. Yeah, that's so sure. Yeah. Refreshing. Refreshing is the right word. Yeah, refreshing is the right word. Anyway, look on that note, let's get on with the rest of our show.

So why don't we start with just setting some context for those listeners that might not be in the uk. If you could maybe Liam [00:06:00] just set out Defra to start with. Like what is it and how does it work within government?

I mean, Defra is a vast department, uh, e even if you just take the name of it, the department, the Environment, food and Rural Affairs, that's big coverage.

That spans an all, an awful lot of the things that are really important to people. Um, we, we do everything from, um, uh, flood protection. Um, so we're an emergency service to ensuring that the, the environment that we live in, um, is, is, is fit for our children, basically, but we also are responsible for ensuring that there is, um, food gets over the borders.

We're and responsible for making sure that food, um, is, um, is, is produced in this country, done so in an environmentally sound way. So organization as. It is, it's quite big. It's very complicated because we do have overlapping agencies that, that, that work for us, [00:07:00] what we call arms length bodies. Um, and they have, they have responsibilities.

Everything from making sure that you get a fishing permit to making sure that. Uh, uh, builders build sustainably and that there is, there is, uh, a net gain whenever we build new buildings. So, so you, it's not, it's not do no harm. It's actually make things better by building,

not, not, not anything else. And then of course, that the one that everyone's always excited about at the moment, which is water.

We're responsible for water and making sure that everything that.

Yeah, there's a lot of discussion at the moment, isn't there, about rivers and uh, and pollution in rivers and things like that. So let's hope that gets resolved quickly.

Yes. And, and, and we are very clear that we, we, we've got an absolute mission to, to, to solve this problem. Um, and that we, we've got a, we've got an action plan to do it.

[00:08:00] Um, we have to work with, with the water companies, um, uh, to, to do that. But, but the minister's been very clear that he, um, he's expecting them to do, um, an awful lot of, um, improvement in the way things work at.

Very cool. And, and on that exact subject, I guess, but in from, from a different angle. Um, talk to us a little bit about the cross government digital, uh, sustainability brief that you guys have.

What, like, what is that and, and how you're going about enacting it?

So, uh, across government, Defra, uh, is the lead department, uh, on digital sustainability. So what that means is, uh, in terms of engaging the supply community, uh, pushing forward the sustainability agenda, getting our suppliers and supply chain to sign up to commitments around, uh, sustainable delivery, build a delivery of the services that we operate.

Um. [00:09:00] We've created something called the GDSA, so the Government Digital Sustainability Alliance, which is, uh, an organization where our part partners, uh, sign up and make commitments about what they will do. But it, it, it also becomes a mechanism through which we can have discussions about how we manage some of the challenges around, uh, different kinds of scope of scope, uh, emissions, uh, across the supply chain.

Um, because one, one of the things, uh. Important to understand when, when we, when we look at our emissions, uh, we need to look at our entire supply chain and the ecosystem because it's too easy to just displace emissions to somewhere else in the, in your supply chain. So you need to look at the entire supply chain.

And that's what we're trying to do with, uh, the GDSA.

So obviously quite a complex thing to do that in fact, I take the word quite out. It's a very complex thing to do that in terms of all that, not only the aspects of how many people are in your supply chains, [00:10:00] how so obs ated, some digital supply chain is how global these things are.

How do you even get started on something like that? They would, if you're, if one of our listener organizations has not really lent into that yet, how on earth do you get going?

I mean, it is tough and I, think it's a, it's a journey and it's a kind of collective learning journey. We're all going on.

Mm. We are. Working with some key suppliers to get the fundamentally at its heart, this is a data problem, so we're working with key suppliers to, to get them to share their data. In some cases they aren't tracking the data. Uh, there's inconsistency around standards for what should be tracked and so on.

There's also, uh, varying opinions about, uh, the quality of the data that it is public. That is being published particularly by some of the, uh, the cloud hyperscalers. But that, that's the starting point. We need to form a view about consistency in the data we capture so that we

[00:11:00] understand where we are.

What we're focusing on now at this point in time is just trying to understand where we are, let alone trying to identify how to drive improvements. Right.

In what way does it help that you have a scientific DNA? Does it help in, in terms of how you set things out and you analyze and you validate?

I, mean, I think, certainly Defra being the lead department for sustainability helps because we have a strong science and analysis culture within Defra and it, uh, kind of permeates everything we do.

So perhaps compared to some other departments where we are, we're much more kind of data and analytics focused in that, in that respect.

And how is the conversations with hyperscalers that you're having, how do they, how do they show up and, and what's the nature of that conversation?

So I think, I think what what is really important is, is is that the hyperscalers step up and, and, uh, give us the information that we need.

I know it's complicated for them to, to, to, um, work out, [00:12:00] but we really do need them to be able to be absolutely transparent with, with the, um, with the costs. Of using the environmental cost, of using the, their, um, their, their, their abilities. Um, so I think I do think that that, that there's a definite call to action there to them to, to, to, to come out and say, look, um, even ev even if we can only say what, what, what goes on in the UK or Ireland, we can tell you that, um, rather, rather than, um, the, the, um, the kind of silence we're getting at the moment.

Defra. We primarily work with Azure and AWS, um, and they, they have both signed up to the, the GDSA so that they're committed to supporting us. And if you, if you look more broadly, they have corporate commitments around Absolutely. Sustainability. I think the challenge there, I mean the, the data challenges apply to them just as much to anyone else, but I think the difficulty for.[00:13:00]

With the kind of explosion in ai, particularly gen over the last 18 months, two years. Corporate commitment is one thing, but the profitability of just building more data centers, irrespective of what the power source is, is impossible for 'em to ignore. So there's a tension there between their long term commitments and meeting these goals versus the near term market opportunities.

And it's, it's not for me to comment on that, but I recognize it's a challenge for them to, to, to balance those

two. Yeah, and it's a, it's a good point because it's not just. You know, the hyperscalers that are caught in the middle of that, is it, it's the, you know, kind of anybody who's consuming, uh, gen AI at the moment is, is in the same tension with it, you know, I think there are, there are numbers that say that say every, every chat GPT query, uh, requires 10 times the power of a, a normal internet search.

And it's roughly the equivalent amount of electricity as it takes to boil a cattle. [00:14:00] So it always seemed to me to be very resource heavy. Do you think, Liam?

So I think, I think the, um, the, it is resource intensive and we can't escape from that. So I think we need to look at, at, you know, not, not all models are built the same, so not all models are, um, as intensive as each other.

So it is possible to choose your model carefully in order to do that. Um, uh, people out there

trying to gather that data and present it to us so that we can make a really good choice about, about what, what, what we do. Um, I think, I think it's not just though about power. I think about water consumption is also a big thing, um, uh, because of, because of the cooling effects, et cetera.

So, so the, the first thing we have to do, I think is, is get a, a kind of an agreed, what do we mean by impact? Um, and, and then be able to say, right, okay, now we've agreed what impact is. How do, how do we then take each of those, each of those models [00:15:00] in each of those instances and say, right, okay, how much is that costing me?

Because actually, when you think about it, boiling a kettle doesn't sound bad. But if you've got a system that's gonna boil a kettle permanently, and the kettle is now 20 or 50 or a hundred kettles. That's starting to get worse. So, so we, we've also kind of got to get our kind of analogies right, so that we can, we can talk about it, i, I, in a, in a way that people understand it because the, the, the boy and cable doesn't necessarily help if you are going to be ending up with AI results every time you, um, you Google and actually the number of AI requests that, that Google are making for you at that point is a hundred, 200, 300.

Then that's an awful lot of kettles and that becomes a bad thing.

Yeah, absolutely. Right. So how do you go about agreeing that impact piece, uh, and have you done that around AI as part of the digital sustainability agenda?

So I think, I think with, it's fairly, fairly early [00:16:00] days, uh, in that sense, but I think what one of the, one of the shifts we have seen in, I think probably in the last six months or so, is my sense, which I see is really positive, is that.

As new models are being launched, they do talk about power and water consumption. That's one of the, you know, the, but they, one of the features they know. But if they think they're particularly effective in, in terms of power and water consumption, the, the part of the marketing will be to talk about that, which previously I don't think any, anyone was really thinking about.

So I do see that, that as a, as a, as a positive move, not. Obviously going back to the standards point, it would be nice if we actually had a consistent way of measuring that across different models so that we, we could say definitively rather than relying on, uh, on a, on a vendor's own interpretation and, and just highlighting the bits that they think are, are good for them.

Um, but no, that, that's, I do see that as really positive. I think more broadly as, as we, as we look across government, one of the things we are, we're trying to do, we've been building up, we'll [00:17:00] be developing our own internal position statement on, uh, AI and sustainability. And we've also set up across government, uh, working group on AI sustainability.

Uh, I think part of the, the thing, the, the thinking we want to put forward is. Responsibility in the use of ai. So mm-hmm. In the sense to, to, to Liam's point that you can't necessarily always control how, where, when AI is going to be used. But you can maybe think about, you know, when, when I'm using Google or if I'm using chat GPT, do I really need to do it?

You know, so. There's a, there's a tendency these days to, to think that, uh, it's quicker to put something into Google than it is say, to put something into your calculator and just do, do some sums. Right. Right.

Well leap to the same, to leap to the most expensive and sophisticated tool, even if you don't need it, type of thing.

Yes, absolutely. So I, I think part of res the, the [00:18:00] responsible AI is about understanding whether it's appropriate to use ai, uh, in a particular use case. And sometimes it, it is, and it makes, makes good sense. And there, there are great use cases where AI does things which humans can't do. Uh, and we, we need to embrace that, but we just need to balance that with.

Uh, trying to avoid frivolous uses of ai. Hmm.

Yeah. Using, using AI all the time is like using an F1 to drive your local supermarket to get your shopping. You don't need to do it, so please don't do it.

That's fair enough. And ano another aspect of this that, that I think you guys look at is whole life.

Describe what whole life is when it relates to, uh, digital products.

The whole life cost is as, as I suggest, traditionally you, you've kind of looked at your, the cost of, of, of a, a, um, a, um, an application based on how long you've been using it. What did it cost you to build it, and what did it cost you to run it.[00:19:00]

Um, and then that's it. You're done. But the whole life cost includes all the things that happened before you built it. So all, all of the, all of the things that need to happen in order for you to be able to, you know, for the hyperscalers to be able to build the capabilities they've had to build a data center.

They've had to, um, you, you put power in, they've had to, there, there is plastics, there is, there are, there are, um, rare earth metals, et cetera that are, that are in there. We can't see them anymore. But they're all there and there's a cost of, of all of those. And then of course, at the end of the process, at some point, all of the stuff that you've built gets, I, the data will get moved or archived or, or whatever.

And that, that's absolutely great. And there'll be a lesser cost because you've archived the data. But actually then you've got all of the fact that the fact that that, that the hyperscalers all your, all your own data centers have got all of those materials that then they're gonna get rid of. You know, you, you, we've, we've all seen outside a, you know, a, an IT building.

You know, old [00:20:00] machines dumped into a, into, into a, into a skip. Well, at some point we are go, you, you have to deal with that. So, so you've got, you've got the cost of all of that equipment for forever. And in some cases, for some of the things that we, we, we, we can't recycle. And so there's a cost to the earth forever from building, from making that one query on Google.

And, and what is it that we can do around that? Is that like an at the moment? Is that, are you trying to educate people to think in that way or have you managed to kind of wrap some measurement around it? Where's the sort of, where's the state of the art in kind of understanding whole life, if you like?

I think, I think at the moment it's very much at the education stage.

It's very much at they trying, trying again to, to, to get metrics together so that we can, we can be transparent because we haven't traditionally done that. In it. Um, that, that, that's hard to agree. Um, especially for, for some organizations where they're [00:21:00] not, they're not, you know, they, they're not so keen on, on exposing, uh, the, the, the life cost.

Um, if it's, if it's not what they want it to be. So they, they, they, they'd like prefer to make a change first and then for us to co come up with the metrics. So it is about engaging the industry as a whole and basically trying to get an set of. Metrics that everyone's comfortable

with, and then being able to apply those metrics.

And then from there you can start to improve. You can start to change things because you've got, you can compare, you know, apples with, with apples,

right? It's an interesting thought in instead of total cost of ownership, TCO, that's what you hear a lot in companies. Uh, if you have a product in your product owner, what's your TCO?

But if you go for a total cost of life, you know that. Mm-hmm. That does that, I think that's interesting. I'm, I'm, I'm gonna try that, uh, towards product managers and product owners, you know, we're talking about total cost of ownership. What, what, what does that mean, you know, when you start owning it, how much did it cost already?

Well, it becomes very much like the Green Ops finops combo, doesn't it? In the sense of, [00:22:00] you know, there's a lot of correlation between, so how much something costs, which means you are typically consuming something, and then the effect of that consumption. And, you know, seeing an evolution in, you know, green ops at the moment.

Uh, Paul, do you see that becoming like a material capability that organizations have or have you seen it in the, you know, with the excitement of the AI wave, have you seen it tail off a little bit?

Uh, I think. I don't think, I haven't seen it tail off. I mean, I think Green Ops is still very much in its infancy, so I haven't seen it tail off.

If anything, I think the impact of AI has probably heightened some, some of the, the desire for, for Green Ops because the use of cloud-based AI models can lead to very significant increases in cloud consumption, which, you know, is driving all kinds of analysis. So I don't necessarily see, see it tailing off, but I think green is.

Is quite [00:23:00] difficult to, manage and, you know, trading off an environmental impact versus maybe a performance impact of the choices you make in a, in a design or a solution is a d is a difficult trade off to make. Mm-hmm.

I don't think it's one that we always to make. I remember seeing a, a really good article about the, of various programming language, um, but I've never seen anyone actually.

Not to use that program language because. Um, and, and that's because there are, there are many other factors that are that, that are, that are, that, that are in, in your mind when you're trying to do that. Not least how, how, you know, the, the, the, the, the, the, the cost to the business unit, um, of, of making a decision like cha changing from one programming language to another.

Just be, 'cause it's environmentally friendly. However, I do think it's still something that you can take into account in your deliberations and, and give a, waiting to that. Then, and then be able to say, well, actually, [00:24:00] it doesn't cost us that much to move from that programming language, that that costs a lot to this one instead.

And therefore, it, it, it's worth doing basically for our children.

Yeah. I, think that's a great point. And also the subpoint you made there about like decision making factors and whether yet sustainability is a, is a strong enough motivator in its own right to do something, whether it be changing a programming language or exiting the data center or, you know, something more sophisticated.

In the last few years, have you seen that move from being like a nice to have below the line thing to being. More present in, uh, in conversations? Or is it still a little bit, a little bit sidelined?

So I think what, what I've seen, uh, in the procurements I've, I've kind of been close to, uh, Defra, is sustainability is one of the Kind of factors when we evaluate different submissions and [00:25:00] we, we want to see what vendors are proposing around sustainability and it's scored and it, it becomes part of the evaluation. And you know, it, it's not necessarily going to exclude you if you don't necessarily have a great story, but, um. It certainly helps your case if you have a good story around sustainability when, when you are, when you're bidding for, for work with the government.

I want, um, this, as we come to the end of the conversation, just wanna return back to AI for a second and the increased position that that's taking in this conversation, AgTech, do you see that as being materially different from gen AI yet, or is it, is it something we don't understand fully? Uh, what, what does that impact feel like, do you think?

I, think AI actually has, has, has the possibility that it'll actually help us out a bit here, right?

Because otherwise what you end up with is you end up using AI's a cost to that and, and just lots of. There are lots of questions to a [00:26:00] single AI and, and getting responses from it. Genetic AI allows us a little bit more to break that down and, and, and help us set a workflow up that allows us to choose the right tool for the right job.

So, although, although it's not us doing it, we can set the, the, the, the, the premise for, for the agent AI to be able to choose the right set of, uh, tools in order to, to come up with the, the answer that we want it to come up with. So we, we can, we could say to it, please don't reply with anything that comes from x.

Because that, that, that's no good. Um, that's too, that's too expensive to the environment. And actually here, here and here, we, we, we don't, you know, these things we want you to connect to, but we don't want you then to use ai. Please use, use your connections to other APIs to do these things so you can be prescriptive in, in, in what the agent AI does, which, which actually means we, we weren't, we're not [00:27:00] just blindly talking to Gen ai.

Really nice take that. And I, I sort of speculate that this year at the big co the big hyperscaler conferences, we're gonna see scaling AI being a, a major thread and a major topic. And we've been wrestling with what scaling framework is actually going to look like, like what are the elements of the scaling framework.

And I hadn't quite thought about it from that angle. Like the, that the underlying AI infrastructure, if you like, is getting to the point now where it can be. Tuned and where it can be, uh, kind of thoughtfully constructed rather than, it's kind of

all a little bit opaque. If I could just build on that as well.

So my, my thinking around Egen AI has evolved just in the last few weeks, to be honest. Same as all of us really. It's moving pretty fast. It's moving, it is moving very quickly. But where I think with, with gen AI typical use cases, we saw. Where there's a guy called Richard Suskin who's just brought out a book on AI and he refers to, [00:28:00] to it as task substitution.

So you have a, you have a process and there's a part of the process. You think I can use a bit of gen AI here to help me with that, which is, which is all good, I think with ai. You have the opportunity to replace entire end-to-end processes. Mm-hmm. Um, so then I, I think the interesting equation we need to think about is, well, I don't want to be a tel of doom.

I think people's jobs are gonna go as a result of this, at least the day the way they do jobs today. We are gonna require far fewer people to do those jobs. To, to perform those tasks in the future, or deliver those outcomes in the future is the net effect of using ai. Actually more sustainable than those people.

‘cause people are environmentally extremely unfriendly.

Yeah. Yeah. I mean, it could be, couldn’t it? I mean, when you think about organizations, I think in the intelligence age are going to be profoundly reshaped by this stuff. And you’re right. Organizations that are kind of less. Physical, less people heavy [00:29:00] could, could well end up being environmentally good.

And hopefully it’s not doomy. Hopefully it’s humans going off to do higher value tasks and all of those sorts of things. So let’s hope it ends up in that direction. But I buy your position on, uh, on that it could ultimately in, you know, net out as being a good thing.

Yeah. The people will stay, be, stay alive.

Huh? It’s not like, you know, there goes some other, other places and then.

Let’s hope not. Esm, we could be used as batteries. Batteries to power the robots.

I do think that there’s a more, a long way from, from being powered by robots. I think, I think, I think the thi the thing is, is that, um, we, we’ve, oh, you’re an optimist

li I didn’t, and I know I’m a massive pessimist, I have to admit.

But, but, but on, on this particular subject, I, I’m very much, you know, we went. The computerization age. We’ve been through the internet age, we’ve been through digitization. And then every time we, we said, actually, this is it. [00:30:00] We’re going to get rid of people. And, and tho those things never occurred. And, and there’s a lots of jobs now that, that exist because we computerized.

There’s not, if you look at the civil service, it was, um, roughly the same size as it is now. Um, in the fifties. Um, before we completely computerized. Um, but, but most people were blue collar. 90% of civil servants are blue collar. Um, they are now 90% of civil servants are white collar. Uh, and all I think that will happen is we’ll be roughly the same size.

I. But we’ll be able to do much more complicated things, much more, um, useful things that, that we can now, uh, you know, for instance, taxation could become much more complicated and, and fairer by, by, by using AI to help us understand how to make it fair. Um, and at the same time, the civil service will be pink collar workers, um, which are people who were augmented by AI and doing, and doing, um, uh, jobs that are much more complicated than they were [00:31:00] because actually they’ve been freed.

From the, um, from some of that, um, that, that, that jurry of, of, of moving paperwork around

what’s going on ez?

Yeah, so I’ve been, uh, helping a lot of organizations in the public sector. Uh, introducing fusion teams, and I think I’ve mentioned it before in the show, uh, fusion teams coined by Gardner about two, three years ago. Uh, Moni, is that nuclear fusion talking about fusion team? No. Nuclear, nuclear food? No.

It’s also, it also sounds like sushi, right? Um, no, but they actually mean that it’s, uh, a combined team where you have. IT data business experts in one team. And if you like for an example, we’re talking about food safety here as well, huh? So if you have a foodborne illness outbreak, so instead of separate responses from science [00:32:00] policy and inspection team, a fusion team would be formed by a scientist and inspector data analyst policy lead a communicator, working in one team, sharing insights, uh, making sure that it’s fast, that you’re using all the data that.

You know, all these different silos actually have, so it's, again, it's the, the sum of all parts. Uh, but what's really interesting, what you see now happening is that we've had these teams that we've been working in silos. So they did their work, uh, how do you say that? The task of work, but also budgets, recruitment, everything was focused per silo.

And now we're creating fusion teams asking across plans, making sure that all their HR policies and the way they work in these teams is. Completely different as well. So that's, that's on the, in the, in the, in the back, uh, background. But I was wondering if, uh, at Defra, are you already thinking about these topics when you're talking about AI and, and digital sustainability?

Is it in a type of a fusion [00:33:00] team or is it quite silo based

as a general principle? We're moving in the direction that you indicated Esme? Uh, I don't think it's, it's specifically for ai, but more generally in terms of how we're thinking about how we deliver services. We're trying to. Uh, pivot away from the business coming up with some requirements, which will then hand over to a digital project to deliver, and then it gets handed over to service delivery to operate more towards having a single team, which owns a service end to end and thinking more in terms of products rather than projects.

So I think we're going in that direction, but it's not specific to ai.

How does that work? Is it embraced fully yet?

It's early days. We just, we're just starting on that journey, but I think there's a recognition that we will be better able to serve the needs of our. Customers and stakeholders by having this approach because their needs will be much more focused in this model where they're may maybe more diffuse in the, in the previous model.

Yeah, I recognize that. And it's also something that with the startup of the [00:34:00] team, one of the main questions is what is the goal of this team and how do we measure, because we're, we're starting with pilots. Just to see, you know, and validate and see how it works. And one of the key questions also is how can we actually measure the impact that this team is making compared to how they previously worked?

I was wondering how would you do that if you measure around those digital soci sustainability impact, where would you start? If you start a pilot in this form, what would be the key measurement?

Typically we're trying to understand things like carbon emissions, water consumption, those kinds of things.

And sometimes that's difficult to measure directly. So then we need to, to use some proxies. I think coming, just circling back to AI a little bit there, uh, one of the real challenges we see in that area is, uh, when we think about gen ai, we may be able to get from the hyperscalers some data around.

Transactional consumption. When we make API calls to a gen AI model, what the carbon footprint is for [00:35:00] that, but that never takes into account the environmental impact of actually training that model in the first place, which will probably be much more significant than the transactional impact when you actually use it.

So. It's a, it's a really difficult problem. I've, I've asked several hyperscalers and they all scratch their heads and say, well, that's a difficult problem. So still work in progress. I would say maybe then the hyperscalers should also be part of the fusion team. Now look, I see the way you seamlessly bridged those topics together, Esmee. I mean, that's this professional

podcasting right there.

Was it Okay? It was absolutely perfect. And on a high note.

Yeah. Well done. Well, look guys, thank you so much for joining us on this Friday afternoon and, um, talking us through some of the considerations that you guys are wrestling with in government.

I, I do think in this era where we effectively have a commercial arms race in the world of ai. That where things like sustainability can be for conveniently put to one side sometimes that having organizations that are living [00:36:00] this every day and representing it, I think is, is so important. So thanks again for joining us.

It was great to see you. Pleasure. Now we end every episode of this podcast by us and our guests, what they're excited about doing next. And that could be, I've got a great restaurant booked to the weekend, or it could be something in your professional life or maybe a bit of both. So Paul. What are you excited about doing next?

I'm going to, I'm gonna relive my youth tomorrow night. I'm going into a gig. Uh, it's a band I've never heard of, but it was recommended to me by one of the younger members of my team. So, kind of music is it, it's kind of, uh, indie, if you know, that kind of thing. I do. Oh. I like big indie. Big indie follower.

There, there'll be lots of guitars. It'll be very loud. The floor will be sticky and my ears will be ringing the next day. That sounds good.

I mean, I dunno whether you go to a lot of gigs, but I bought a talking of ears ringing. I bought tickets for also an indie band, but from quite a long time ago, uh, called My Bloody Valentine and they, they put out my favorite album ever, which is [00:37:00] Loveless and they only, they only pop up every 10 years or so.

And they take a legendary legendarily long time to, um, to put records out and stuff like that. And, um, they play so loud that they actually hand out ear defenders at the gig in a league legally playing so loud. And, uh, they have, they have one section where they play the same note. For like half an hour or 40 minutes and they called it the Holocaust section.

It wasn't hard to get tickets, I think. No,

it, it was, it was easier than Taylor Swift. I. Yeah. Liam, what are you looking forward to doing next?

Uh, so I'm looking forward to going and buying a caravan, um, uh, for two reasons. Uh, one so that my wife can sit and look at the sea, which she loves to do. Um, it's a static carvan, by the way, by the sea, unsurprisingly.

Um, and, and two, it means that I can read. All of the, um, uh, the books on [00:38:00] AI and, and et cetera that, that I want to do, which I'm not allowed to do in the house. But if we're there, the promise is we we're just relaxing and therefore I can sit and read what she calls my nerd books. Yeah.

Books on ai, you should be able to ask the book. You know what I mean? Yes, you should. You should just be able to have a conversation with the book. The

thing, the thing. Even, even with. Like holding an actual book still for me. I, I, I could, I could ask AI to gimme a synopsis of, of all of these books, but actually I, I like holding, I, I, I'm flicking through a book, so, so I'm, I'm, I'm old fashioned in that regard.

Yeah, me too. Me too. I prefer an actual physical book. How about you Es?

No, I I'm actually thinking about Rob. We're missing him. Rob, we miss you. But I think he would actually agree, like there's nothing, you know, more special than have a printed copy of your, you know, of your [00:39:00] entire travel schedule exactly what I'd expect of, uh, of Robert.

That's for sure. That's for sure. Well look, thanks again, guys. It was great to see you.

If you would like to discuss any of the issues on this week's show and how they might impact you and your business, please get in touch with us at Cloudrealities@capgemini.com. We're all on LinkedIn. We'd love to hear from you, so feel free to connect in DM if you have questions for the show to tackle.

And of course, please rate and subscribe to our podcast. It really helps us improve the show. A huge thanks to Liam and Paul, our sound editing wizard, Ben and Louis, our producer Marcel, and of course to all our listeners. See you in another reality. Next [00:40:00] week.

About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, generative AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2024 global revenues of €22.1 billion.

Get the future you want | www.capgemini.com

Capgemini