

## **Andy Packham**

Hello and welcome to another Elevate series of podcast where we explore the intersection of innovation and technology.

We have a big problem. Our climate is getting increasingly unstable and that's got serious implications for everyone. It's not a problem that one sector one industry one organization is going to be able to solve. Technology contributes significantly to this in terms of emissions and consumption of valuable resources but also provides through innovation technology partnerships, the solution. So as COP 27 is going on in Egypt, I'm very excited to be joined today by Neetha Ravikumar from Microsoft.

Neetha before we kick off, could you just describe your role.

## **Neetha Ravikumar**

Absolutely. Hi Andy! Thank you for having me here today. I'm Neetha Ravikumar, Global Director at Microsoft sustainability business strategy and go to markets with Microsoft's most important and largest partners the GSI partners global systems integrators. I have been with Microsoft for over six years now primarily focused on partner business. I actually started my professional career in the energy industry as a licensed professional engineer in Texas and I have an environmental engineering background with both partners and masters in environmental engineering, so I primarily help my customers clients in developing water and waste permits

I've audited over 200 oil and gas sites so my experience spans from around formatting compliance all the way to environmental management systems where I advised my clients or the people processes and policies and procedures required to ensure sustainable compliance and in this role I also liaised with state and federal regulators and now I get to live the dream job which is combining my past experience my educational knowledge and background along with my partner business development background at Microsoft and I am based in Redmond WA.

## **Neetha Ravikumar**

Thank you. So clearly you're the expert here so we hear all of this you know the focus on sustainability net zero targets in investment pressures there's all sorts of terms and all sorts of pressures that that we're seeing. Could you kind of set the stage what does this all mean?

Absolutely i mean it was many decades ago when the very first OB IPCC reports warned us of the consequences of increased emissions into the atmosphere. Right and at that time it was projected more as a future risk . Fast forward now it is here and happening very much in real time I mean just in the first six months of 2021 the insured losses from natural disasters was \$42 billion. This was according to the insurance broker Aon and this figure was a 10 year high .

Now deadly floods subsequent landslides typhoons Tsunami, polar vortex ,heat domes resulting wildfires severe droughts .Feels like we're almost in some apocalyptic movie and just a few weeks ago we all witnessed the havoc that hurricane Ian caused in Florida so an emergency event database recorded a total of 10,492 deaths from all of the natural disasters just in 2021 and a total of 101.8 million people affected and just putting that in perspective that is, one in every three residents in the US affected from these natural disasters. Now these are major disruptions to life environment and business and this global economy that mankind has built over the century. It's an intricate web of dependencies

that are truly global in nature and we have brought ourselves to a point where natural disasters that are completely beyond human control are breaking down critical links in this web. And these disruptions have left us more vulnerable than ever and supply chains are utterly disrupted. When agricultural fields get flooded, roads are washed away in floods disrupting the transport timelines to extreme spikes in electricity demand and temperature.

When you take a step back and review the associated risks with climate change they are split into two types. One is the physical risk basically increasing severity of weather events and the long term impacts of changing weather patterns something that's very visible and then there is transition risks such as the policy risk, market risk, technology risk and reputation risk. Take the policy risk for example any of the existing and emerging regulations aimed at addressing climate change enhancing reporting requirements to carbon tax to fundamental license to operate and market risk, stemming from increasing risk of raw material in cost of raw carbon to shifting consumer demands and preferences and we've seen that pretty strongly in the past few months.

A technology risk costs associated with transition to lower emissions or even substitution of existing technology process technology when a steel manufacturer thinks of moving to an electric car but from a blast furnace and products were the ones that have lower carbon footprints. And reputation risk - Perception of the brand by consumer. Now all of these risks at the end of the day impact the bottom line of the company and therefore are of concern to shareholders and investors.

I just wanted to say that because all of this, sometimes I do get a little disappointed that if this had not impacted the bottom line of the company and the shareholders and investors and nobody would have given a damn about it

### **Andy Packham**

No you're absolutely right. It's actually hurts the pocket. Look at that numbers. Is it not a good thing. Yeah, the numbers are speaking. Everyone's going trying to find the good in the bad yeah definitely so I'm gonna go back to the last point so all these risks at the end of day impact the bottom line of the company and therefore are of concern the shareholders and investors now businesses that fail to evaluate the risks and course correct may become completely obsolete in the future.

So apparently is clear you look at those numbers. These are scary numbers. This is just such a big problem where you start how do you break this down rather just looking at it just can't do anything

### **Neetha Ravikumar**

Yeah, it's complex I mean what we have seen is that there are varying levels of maturity in organizations. When it comes to sustainability reporting and carbon reduction efforts. Action are at the core of sustainability transformation when we repeat that data and action are at the core of a sustainability transformation to go from pledge to progress.

As we call these two need to be addressed and connected. Now reduction actions informed by the data which is the emissions data is what companies need to undertake. A very simple analogy is that when you have your expenses going through the roof your first thing, is to identify. Now applying the same analogy the current company carbon accounting is stuck. Getting the house in order starts with getting across all the scopes 1/2 and three and across your entire business value chain. Now this is what we call

unified sentence provide insights which you can then use to identify the right direction or the right reduction activities. This data provides insights which you can then use to identify the right reduction activities you need to undertake. What we call the decarbonization pathways in this table to be honest. Some companies have been doing this since the last few years, however this effort is very much a look back activity. Almost too late to make any significant and immediate changes to the business operations and that's what's need to change. It can no longer be a looked back activity but more of a forward-looking activity.

### **Andy Packham**

Neetha what do you mean by forward-looking activities

### **Neetha Ravikumar**

What I mean by that is to have a pulse on the emissions in near real time and projecting what they would look like for the end of quarter or end of year and making changes in real time to ensure that companies can hit their goals and their dependency on companies' financial performance.

Think of a company's financial results. Every company ours yours and every company in the world tracks financial performance so closely and the data and intelligence gathered is then used to evaluate and steer the ship to hit the performance targets.

Same rigor and discipline is required if companies are serious about hitting their net zero targets. I mean we don't get paid looking back right. The payroll runs on a bi weekly basis or on a monthly basis. The financial performance results are analyzed at a regular pace. So that is a level of rigor we need when it comes to monitoring emissions and making those changes and adaptations in real time.

### **Andy Packham**

So that's complex. What's the role of technology and how does technology play a role in driving that translation.

### **Neetha Ravikumar**

Andy, as we all know we are currently in the 4<sup>th</sup> Industrial revolution powered by technology and technology will be a very powerful lever that will enable companies to work upon this transformation. Scale and complexity, demand the use of technology. Spread sheet and siloed systems are grossly inefficient given the existential crisis. It can help a company go from retroactive approach to getting more real to Realtime on the state of operation and therefore their carbon footprint. IOD will play a huge role in sustainability translation. Those signals I real time enables companies to make decision near real time vs having to wait for 6 months to wait for the results to act on it .And yes technology will have its own carbon footprints and it cannot be ignored .Now the journey to cloud decision has a completely new dimension in addition to cost efficiency and to the carbon footprint. Now Microsoft is investing heavily in reducing the footprint of our cloud services so moving to Azure helps companies stay aligned with your net zero actions.

We Microsoft want to provide full visibility to our customers and the carbon footprint from their Azure usage through our Azure EID emissions impact dashboard. We recently announced a new ID for Microsoft 365 and we are working on providing similar visibility on our first party devices as well and we

also have what we call the CAF and WAF. The Cloud Adoption Framework and Well-Architected Framework. And these can be found in the solution center and essentially focus on factoring sustainability at the infrastructure design stage from providing these tools to focusing on packaging materials.

I mean there is a whole bunch of innovations we are undertaking from grid interactive UPS batteries to liquid immersion cooling to more sustainable packaging and single use plastics. So in summary the outcome of these innovations, don't just have Microsoft become net zero by 2030 but these benefits are also passed on to our customers with the use of cloud services and products and most importantly it's our partner ecosystem. I mean Microsoft is blessed with the largest partner ecosystem in the world and our partners are deeply engaged with our customers from driving business transformation down to the specifics of technology transformation and you know you HCL and rest of our partners are bringing their deep domain and technology expertise to help customers with this most important transformation of our times. Be it through advisory, technology consulting or implementation to ISV type solutions making the journey with customers down to the last one so yes technology is going to play a massive role in really breaking down those silos. Helping us with visibility providing us the ability to just get near real time visibility into their missions and the ability to go back and make changes in real time and I cannot stress that enough and the scale and complexity of the climate change challenge I believe only technology can rise up to that I mean I lived a good chunk of my life as an environmental engineer doing permitting, I remember scrubbing emails and sheets filled out by plant floor employees ,you know she's muddled with all kinds of grease and mud really fishing data out of that and that is so archaic we simply cannot continue with that so technology is going to play a massive role in helping us at least get to the point where we need to be

### **Andy Packham**

Neetha, thank you so much for your time today. I'm kind of scared on one hand about the change we see but really excited about how technology, we're gonna drive some of the solution and health partners should be I agree with you it's all about partnership. Like I said it's this is all feel far too complicated. Some of the solutions that we're bringing into market, some of the engineering changes we're making is driving that early adoption early change so so thank you very much if there's anything you'd like to do to wrap up this session I'd really love to hear the final wrap up words

### **Neetha Ravikumar**

I know COP 27 is underway and I've been reading some of the reports coming out of it and yes it's definitely scary I think a lot of the scientists that are going the words that you know it's very likely that we're going to miss the 1.5 you know limiting the climate change temperature rise to 1.5 degrees Celsius. That is definitely scary I think we humans have a responsibility to really correct course correct that our future generations who have just borrowing natural resources ,the benefit of good climate from them so we owe it to them. I have a 2 year old and I cannot think of how hard and harsh the climate is going to be for her. We've lived through a heat Dome when we lived in Vancouver Canada and that was

the first of its kind .Temperatures rising inside homes to 116 degrees Fahrenheit .We couldn't survive that I mean we had to hunker down and basement like we were in some warzone so when you think about all the lives lost in floods and hurricanes, I think it's high time we act .We behave like you know as a society we behave like we were blessed with unlimited natural resources and we could just exploit everything that we were provided with but now we're realizing I think we owe it back to all of these future generations that we are just here temporarily and we have we really need to make sure that we don't exploit everything and leave them with the worst possible climate ever. So I really hope the nations leaders all the business corporations will look beyond profits, we'll look beyond the economic feasibility and benefits and really take action to make sure that we limit climate change and the temperature rise and you know this is I was talking to a colleague of mine and saying how humans when challenged will definitely rise up to the challenge and you know, Darwin's theory proves this .So this is yes one of the most challenging moments in human history. But I do believe that the technology we have with the power we have, the will we have we will to do something .I would like to end this with you know I know in the scary right now but I would really like to end it with the hope I still have hope you know hope is not a strategy but I think hope and it will power is everything that we have in need, so still having trying to maintain that positive outlook hoping all the people in power will do the things- the right way to help protect us going forward

**Andy Packham**

so either thank you I think the most important thing and you show it is passion. If we all have that passion we will solve this problem. So thank you very much.

**Neetha Ravikumar**

Thank you so much for having me .