Paul Ortiz: This year, the world's attention has shifted towards our global drive to net zero with United Nations describing it as a make or break year for action on climate change range. Despite COVID 19, net zero commitments have roughly doubled. Many countries are currently determining how green stimulus can best support economic recovery. [00:00:30] And in November world leaders will gather at COP 26 to coordinate action to stop the rise in global temperatures. Hello, I'm your host Paul Ortiz and in this episode of IfWin, we demystify the terminology surrounding de carbonization and discuss some of the major challenges and opportunities facing the world today. Our guests include Jens Nielsen CEO of the World Climate Foundation, Zoe Haseman, Jacobs, vice president for Global Sustainability and Pete Adams, Jacobs global [00:01:00] market director for power. Thank you all for joining me today. Zoe to kind of start us off, want to set the table on what net zero is and what it means and why it's pertinent to our discussion. So there've been a lot of conversations around reaching net zero, but what does this mean and why is it important?

Zoe Haseman: Thanks, Paul. Great to be here, speaking to you today. So to best explain this term, let's just take a step back and first explain the context. [00:01:30] Decarbonization and net zero stem from the urgent need for us to tackle the climate crisis. All the impacts of climate change in the risks that these pose to our society. The climate crisis is the world's most critical challenge right now. And we need to overcome it if we are to secure a sustainable future for society.

The impacts of climate change are unfortunately unfolding in front of us more and more frequently already. We are seeing increasingly erratic climate events that have had huge consequences for society. [00:02:00] From the recent flooding in Sydney and Australia or the Southern U.S winter storms just to mention a couple, and these will have dire impacts on people. Whether it's cutting power to millions and destroying property and homes. And in many cases causing tragic loss of life.

The economic, environmental, and social costs of climate change are enormous. And it's human activity that's causing this climate change and global glowing economy further fuels it. The emissions that we're generating globally contribute to [00:02:30] global warming and are changing climate. To stop further and frankly, catastrophic climate change in the future, we need to transform how we live and function on earth to reduce and eventually stop the [inaudible 00:02:43] emissions that are causing this climate change. So it's this reduction and ultimately the end to harmful emissions that is called decarbonization and how we reach net zero. And zero is the amount of emissions that we have to aim for and achieve.

Paul Ortiz: Hmm. So what's the [00:03:00] net part of net zero?

Zoe Haseman: So the net zero part, the net part means achieving a balance between the amounts of greenhouse gases or carbon emissions produced and the amount removed from the atmosphere. And there are two different route to achieving

net zero, which work in tandem, reducing the existing emissions and then actively removing greenhouse gases. A zero target would mean reducing all emissions to zero. But unfortunately at this time, this is not realistic. So instead [00:03:30] the net zero target recognizes that there will be some emissions, but that these need to be fully offset predominantly through natural carbon sinks, such as oceans and forests. When the amount of carbon emissions produced are canceled out by the amount removed, then an organization or country is a net zero emitter, the lower the emissions, the easier this becomes.

Paul Ortiz: How does decarbonization fit into all of this?

Zoe Haseman: Decarbonization is the term that describes how we get to net zero. [00:04:00] It's how we reduce the emissions that we produce. And there are many ways of doing that depending on the type of organization and industry. The primary challenge though, for countries and governments and how we'll make the bigger shift in society, decarbonization is through the energy transition. And that is how we move from a fossil fuel economy to ultimately a clean energy economy or a net zero economy. So while efforts are underway by the energy industry [00:04:30] to decarbonize power and decarbonize the grids all over the world, there's also a lot of things that organizations can do as well. And that is really how they tackle their own emissions. So if we look at an example, let's take a beverage company as an example, emissions are produced throughout the whole life cycle of producing a drink.

So all the processing activities consume energy, to run the operations they also consume water, which further results in emissions. You've then got the transportation of the ingredients [00:05:00] into the factory, as well as then the distribution of the final product out to retailers and all of that transportation has huge emissions related to it as well. All that activity. You've then got to power... Think about how you power the warehouses and the refrigerators within the warehouses. Again, all energy consuming activities and really finding the best ways to reduce that a source through energy efficiency. It is key to organizations and their decarbonization journey. [00:05:30] There are the emissions that the suppliers who produce the ingredients also have to think about. So really that supply chain impact of the activities as well. Then you've got the workforce. So the people who at this organization traveling in to work every day from their home.

So to decarbonize an organization like this one, for example, the company's going to have to think about operational efficiency throughout the whole of the manufacturing process and life cycle to really reduce energy consumption and [00:06:00] emissions at source. They might have to think about investing in renewables at the factory as well to start generating their own clean energy. They also might want to look at things like incentivizing their employees to use public transit where available for the commute to work rather than single occupancy car use. And then they can look at their supply chain and how they might wish to switch logistics providers to a clean energy supplier. So these are

just some of the ways a business like that one can continue to make the transition towards [00:06:30] decarbonization.

Paul Ortiz: Yeah. And I've actually been privileged to speak to various guests on this show about things like nuclear energy and smaller modular reactors and various other ways that the energy sector is trying to think about how we can have a more beneficial energy production in terms of the environment. And so Pete I [00:07:00] want to bring you in on this, what's driving the world to act we've heard from Zoe that reducing the impacts of climate change are the biggest drivers, but globally we've been relatively slow to respond, perhaps from when you think about all the various players involved, however, it feels like over the last couple of years, there's been a greater increase in the momentum. And so what's changed?

Pete Adams: [00:07:30] Well, hi, Paul, and thanks for the opportunity to talk to you this afternoon and for those people listening. We have been working on this some time. It isn't something which we've just picked up in the last couple of years, but I guess the rate of change that we've seen in the last couple of years has really been prevalent and we're seeing that here within the Jacob's family as well.

We could break it down into push and pull factors. So maybe we'll start with some [00:08:00] of those push factors to start with. So in recent times we've seen a real drive with regards to legislative change. Started with things like the Paris agreement and that's transitioned into regional governments, really driving things as well.

I mean, some great examples that we've seen in recent times, Singapore's just come out with that green plan, which is setting a vision out to 2030. We've seen the UK come out with their energy wide paper, which is linked to their 10 point plan. And those are just two to mention. You see that [00:08:30] around the globe. So there's that legislative change. That's the first piece. We also see some of the things that Zoe talked about, which are there's real, tangible indicators that climate change is real, it's here. It's not some fictional thing that we've made up and the "do nothing" approach isn't good enough anymore. It's actually, we have to do something, the "do nothing" is more expensive than actually the changes that we need to make to the systems and the [00:09:00] processes to turn us into a clean agreement society. And it's a really really there.

And how we fund them is also really important. So clean finance and green funds are there. But our investment community is really also driving this and a really great example of that is the recent BlackRock paper or not paper, letter they sent out to companies where asking them or encouraging them to demonstrate [00:09:30] their models that they're using to keep the climate warming to less two degrees by 2050. So those are a few of the push factors, as we would say, but on the other side, there's some pulls as well.

So reducing emissions from a cost base, we've seen the drop in renewable so it's becoming more and more affordable, reducing our consumption as a society and making sure manufacturing is using less disposal... [00:10:00] Actually generate savings and those savings can then be reinvested back into business to stimulate growth. And we know that growth is one of the key things, which drives modern society, modern economy. So again, we're seeing some of those pulls.

And then I guess last but not least is one which sort sits quite warm. When I thought about some of this stuff is the honest generation and not going to effect of this having. So if you take my children, [00:10:30] the way that they feel about things and the way that they consume now, they want to know that it's coming from sustainable supply, and that has a net impact on how parents will buy and then how their parents will buy. I'm actually seeing that in my own family.

It's quite an interesting fact. I had a conversation with my mother the other day with regards to... She was changing electricity supplier, and she was very, very proud of the fact that she could say to her grandchildren, "You know what, I've gone with a clean green [00:11:00] supplier of electricity." Made me proud because that's part of my job, but just you seeing that societal change, that push the honest generation is really, really interested in in where we're getting things and what's going on in their backyard.

Paul Ortiz: Mm that's that's amazing. You know, because it's like you're seeing that in a microcosm at the family level, but in the macro level, you're seeing this push really in the investment community or ESG has really come to the forefront and [00:11:30] investors and financiers are really focused on this topic and related topics. And so it's driving behavioral changes. Now, Jens, we've seen a big shift from policy, from talking about this, to acting on it. And particularly in relation to net zero, what are some of the biggest positive changes that you've seen and what are some of the remaining challenges?

Jens Nielsen: [00:12:00] Thank you, Paul. And thank you for being able to participate on this important podcast. I'd like to add a few more perspectives to what Pete was mentioning, but then let me first start by going back to the years just prior to the Paris agreement on climate change in 2015. I think in a crude way, you could characterize the stance of stakeholders then, and that was no matter whether you were talking about state cities, businesses, finance institutions, [00:12:30] or whatever, almost all followed a normal distribution. At one end of the spectrum, you had 15 to 20%, there was pro a global agreement. At the other end, you had 15 to 20%, which was against in reality. And then in the middle, the remaining six to 70% was sitting on the fence, looking towards the other two groups on who they should follow.

With the Paris agreement, we got a platform and a process on which to work on collectively. [00:13:00] The difference from then to now is that what is,

emerging is a majority of actors in every field that are aligning with the Paris agreement. So I would say you have a crowd effect, you have a snowball effect, and you have much more organization that wants to be leaders in their field. At least when we look at non-state actors, so corporations and financial institutions, et cetera, in terms of countries. Hopefully with the U.S now solidly back on the climate [00:13:30] agenda under the new Biden administration, then U.S can take the lead on large emitting countries to all commit to business commitments or the NDCs and national determined distributions as you call them, to be submitted this year at COP 26 in Glasgow. So I would add the crowding factor as such.

The other factor that I think has been important is the general public through [00:14:00] our role as voters and our role as consumers, especially the pressure from the younger generations. The effect of [inaudible 00:14:09] and fighters for future has played a key role in the last couple of years. And I especially think that businesses have been quite responsive and of course, need to be responsive to their future consumers also.

So I will add that as a second lead factor to what Pete [00:14:30] was mentioning. In terms of what is impressing me now, I think in particularly the many pollutions that we see for net zero within specific industries, but also for the financial sector that is hugely important for pushing investments towards greener areas, but also to fund the transition in how to abate sectors. And then I think actually that the UK and Unit [00:15:00] CCC that are behind the global negotiations are doing a great work in campaigning for net zero commitments up to COP 26.

And then you asked a second part that was, what do I see in terms of remaining challenges?

Paul Ortiz: Yes. Mm-hmm (affirmative).

Jens Nielsen: Yeah. I would say that in addition to the net zero commitments by 2050 or shorter, it's really the long term view. We need specific plans [00:15:30] and actions to drive C02 emissions down in the shorter term now until 2030. So we need to reduce emissions these by 50 or 55% over the next 10 years. So it's really a crucial decade that we have now. We need countries to not only come with ambitious net zero commitments at COP 26, we also need them to start working on the real national implementation plans.

[00:16:00] Pete was mentioning Singapore, I can mention my home country, Denmark, which last year implemented an actual climate law demanding a 70% adoption by 2030. We need corporations to do real decarbonization, so deep decarbonization. And then we need investors to invest much more in the green sector and in transition [00:16:30] of the heart topic sectors and an important trigger for this short term change is of course, strong focus on investing in green

recovery after COVID-19, in particular investing in sustainable infrastructure, they can hit lasting and wider effects in greening our societies.

Paul Ortiz: So when you think about the... Or at least when I do, and I have a pedestrian understanding of the issues concerning [00:17:00] how our energy production resources and sector impact the global climate and obviously things like fossil fuels can be problematic and having a disbalanced energy portfolio and how we produce our goods and how we run our economies can obviously accelerate the problems. And conversely, if we have [00:17:30] more clean energy production can help in the effort to decarbonize. I want to ask you Pete, to ruminate for a moment on energy and energy production. We're so reliant on electricity. We're so reliant on energy to power our vehicles to then run the global economy. So can you give us some thoughts on where we need to go with energy [00:18:00] production and how energy production fits into the decarbonization efforts?

Pete Adams: Yeah, it's actually a really topical conversation, because my team are actually having a number of thoughts around this at the moment. So broadly speaking, electricity currently is about a third of all carbon missions. And as we looked to what Joe Zoe was saying earlier, as you decarbonize the other industries the look [00:18:30] towards electricity as a clean fuel source drives demand. So we're going to see that demand increase, which is something certainly in the Western world. We haven't seen in great shapes for many decades. In fact, we've seen a decline in some countries as energy efficiencies come in.

That's an important aspect to take. So we need to consider that increase. Now, depending on where you are in the world, new sources of renewable energy are more prevalent than others, but generally speaking energy, [00:19:00] isn't the problem. It's energy at the right time of the day, that that is a challenge with a system perspective. So there's two sides to this equation. We can continue the way that we work in today's society. So as we come home from work or wherever, we turn on the lights and turn on the heating and we expect everything to work and to cover that we increase generation. So we ramp up our generation capacity, but that only [00:19:30] really occurs at certain times of the year.

There's an alternate message to this, is to turn around and say, "Yes, we need to increase our generation so you can meet that demand which is required." But if we change our societal behaviors using modern technology, you can actually tailor the demand to meet the generation needs. So there's a two sided equation to this. So it's not just about the generation, it's actually also about what you do demand side and modern technology helps us with those sorts of things. So [00:20:00] there's a societal change as well, which is needed. That might not be a hundred percent answer to your question away, but I think it's really important piece to get across that there's two parts to this equation from an energy transit issue perspective.

Paul Ortiz: Yeah, no, I think it's very relevant because so much of it is behavioral and Jen's, I'm going to segue to you on this because we're talking about global cooperation between governments and corporations [00:20:30] and... There are a myriad of competing financial and national interests and so to reach net zero, it seems to me that we need strong collaboration from all markets and a whole range of these stakeholders, but the question is like, how do we get there? So can you tell us about the world climate foundation's focus on cross sector partnerships? How [00:21:00] has that been working and how is it helping to promote coalition building in this endeavor?

Jens Nielsen: Thanks, let me start by an example. So we have been working on something we call the climate investment coalition for the past couple of years in partnership with the Danish government and the Danish pension funds and also international pension funds. And in 2019, that work [00:21:30] led to a groundbreaking commitment for the Danish pension funds of wanting to invest 50 billion U.S dollars in clean energy and climate investments over the next 10 years.

And I would say that happened on the background where the Danish pension funds already have invested quite a large amount of money in the clean energy investments, but it was also a conditional commitment that dependent on [00:22:00] the right regulatory framework. And that's a clear example that for these to unleash these investments, it requires the correct regulatory framework and therefore often creating low carbon markets.

That is dependent on the public and private sector, working together in defining these new markets and creating these new markets. I also want to say in that coalition, we now work, not only with [00:22:30] pension funds or other asset owners, we also work with asset managers. We work with developers and technology companies, and then governments because you need this whole ecosystem of stakeholders to jointly or to join forces, to create the new markets and find solutions for the net zero economy.

So that's a specific example on how we work. So in general, we work with the leaders from government and business, from [00:23:00] institutions and civil society on those kinds of coalitions and partnerships. And we do see also major transformative power through this public-private interplay. And we are working with a concept what's called ambition loops, where you have business and government that work to mutual benefits in attaining higher aspirations in moving to new material [inaudible 00:23:23] and business models.

Paul Ortiz: Hmm. So it seems to me that it takes a [00:23:30] little bit of innovative and creative thinking, but that there are opportunities to explore new markets and to create new income opportunities. First and foremost, though, there has to be the will to find them and to pursue them and to make them a reality. Now, Jens, I know that Jacobs is working to partner with you and your team at the World Climate Foundation this year. Can you speak [00:24:00] to some of the

outcomes from previous events and what are you looking forward to the most this year?

Jens Nielsen: We've been doing the world climate summit for more than 10 years in a row at the COP. And we have built up a very strong community of key decision makers with the focus on solving climate change. And throughout the years, we have delivered a range of commitments to reduce carbon and financial commitments also. We have developed a number of partnership, but also many actual deals [00:24:30] on this platform and have been carrying that out in over 15 coming clean economy markets.

This year, I'm looking forward to mainly three things. First carrying through our roadmap to COP 26. That is the three regional world climate forums for Europe, north America and Asia, with a focus on developing proper private partnerships on green recovery and implementing regional climate ambitions. [00:25:00] In these cases, the Bidens built back better plan and EU screen new deal. And Asia's net zero commitments across advanced Asian countries.

Second, I look forward to launching our platform for public private partnership on biodiversity, which is an upcoming strong area for public private collaboration in ChoMing, in China in October. And then finally, of course, hopefully [00:25:30] celebrate ambitious commitments at COP 26 in Glasgow. Government business and finance, which was on a track to achieve net zero by 2050. And for all of this, we are extremely pleased to work with Jacobs as a global partner.

Paul Ortiz: Excellent, excellent. Well Jens, Zoe and Pete. I want to thank you all for joining me today and lead me through a discussion on decarbonization and net zero and climate change and sharing [00:26:00] your expertise and looking forward to learning more about this and seeing the great work that Jacobs and the world climate foundation will be doing together. So thank you so much.