Capgemini invent

# FUTURE SIGHT PODCAST

## Ep.20: Beyond Net Zero - Part One

# Episode Transcript

**Liz Lugnier:** This is Future Sight, a show from Capgemini Invent. I'm Liz Lugnier. On this show, we explore new ways for you to adapt and grow for the future in business. This week, we're continuing our September deep dive into sustainability, beginning a two-part episode on one of the most pressing issues facing businesses today: the race to reach net zero. Over two episodes, we'll delve into carbon neutrality, leaving no worker behind and what it means to reach not just net zero, but to go beyond it, speaking to the leading minds at Capgemini and beyond to get a full view of this vital realm.

We all know the term net zero. It's printed on ad campaigns. A buzzword that every CEO uses in their keynote. But net zero is just the start of true sustainability. Net zero is essentially a neutral gear in our path to solving climate change. Neither backwards nor forward. So what does beyond net zero, the forward gear look like? This approach looks to how companies can tangibly contribute to creating a sustainable ecosystem, both inside and outside of their organizations.

It shows that if industries can work together to find better approaches, rather than just iterating internally, they will be able to create a truly meaningful and sustainable impact. But before we add in the notion of beyond, we should first work out what the term net zero means by itself. To find out, I spoke to one of our experts in this field at Capgemini, Florent Andrillon, our vice president Energy Transition global leader at Capgemini.

I asked him to give me a definition of net zero and to tell me where we currently stand in the race to achieve it.

**Florent Andrillon:** So, before we really give a definition of what is net zero, maybe a bit of clarity among the terms. We hear a lot talking about carbon neutrality, which means that any CO2 which is released in the atmosphere from a company or an organization, an activity is then balanced by an equivalent being removed.

We hear also climate neutrality. So that refers to all greenhouse gases being not just CO2. And then there is also further engagement, which means being net zero, so net zero CO2, meaning that you release absolutely no carbon emission into the atmosphere. And there's quite a lot of debate currently when companies are making commitment towards climate neutrality or net zero, you know, how far do you go in terms of engagement?

And if we go one step further, we also start to hear a lot about, being climate positive or being carbon-negative which means being net zero and going further in terms of emission avoidance to really go beyond what's your own footprint.

**Liz:** Florent. I want you talk about the transformation and you talk about net zero, but why is it critical that we're looking to go further?

**Florent:** Going beyond net zero is really of paramount importance if we want to fight climate change and global warming. We've seen that this summer, the IPCC has released his latest report on climate change. And there is now absolutely no doubt that human activity has a significant impact on climate. The fight that is going on and the race that is going on is to decrease our emission to avoid a global warming of more than two degrees. So we need to ensure that global warming will not go beyond two degrees. That's what the scientists explained.

If we want to avoid a catastrophic situation for the environment but also for the human being and that, being becoming net zero and going further net zero, is really critical because we have no choice than to reduce our emission if we want to have a chance of survival in this century and beyond, that sounds a bit dramatic. But when you look again at the IPCC curves, the pace and the reason which we need to engage to reduce our emissions is absolutely a huge reaching. And a net zero state is really critical if we want to continue, I would say, to live in a sustainable world.

**Liz:** The burden of reaching net zero has long been focused on the individual, on eating less meat, driving a bit less, cycling to work. It's been focused on small changes, which might, if we all take part in them affect real and lasting change. However, the work that companies do in this space is equally vital, if not more so.

I wanted to find out a little bit more about what we at Capgemini are doing in the race to reach net zero and what goals we have set in order to reach it and then to go beyond. So, I spoke to Kiri Trier, our director of Innovation and Strategy and Sustainability lead here at Invent. I asked her to explain exactly what our goals are for now.

**Kiri Trier:** I mean; we do have goals to reach our definition of net zero. So we have set ourselves ambitious targets by becoming climate neutral, not later than 2025. And we would like to reduce 10 million tons of CO2 equivalent with and for our clients. So we built our own carbon calculator to measure our CO2 emissions in our projects for our clients and with our clients.

**Liz:** How have you done that with one of our clients? Can you give me an example how that's worked?

**Kiri:** Yeah! So for example, we did this in terms of, for IT migration with one of the OEMs, so a leading automotive company. So, we measured the impact on our project. So the CO2 emission impact. And we found out then in our HR project management way, we reduced our emissions by 50% and also by integrating new IT architecture.

**Liz:** And what would that mean in general? If we ended up reducing our emissions by 50%, what kind of impact could that have?

**Kiri:** It actually has an impact on the goals of a company, obviously, on their CO2 targets, but also starts to rethink the way we work. So for example, we reduced our travel cost. We reduced our waste cost. We reduced our energy cost by finding new solutions and new ways on how to work. We found a kind of new workspace, how we define working with the client. For example, not flying over to the client for every meeting and working remotely and also tracking and calculating the energy you are really needing, to behave, to work.

**Liz:** For companies, setting goals and following through on them as how to get on this path to net zero. But it's only the first step on a long road. A long road, which goes beyond stopping flying and calculating energy. It's a road which even goes beyond carbon neutrality. It's about becoming carbon negative.

**Kara Pecknold:** I like to quote Einstein; you know "no problem can be solved from the same level of consciousness that created it". So I think everything that we are working on is really trying to ask ourselves, is this the only way? And I think that's the value of a designer's mindset.

**Liz:** I needed to speak to someone in the know about all things beyond net zero.

So I got in touch with Kara Pecknold, an executive design director at frog, our global design and innovation consulting firm. Her work in designing sustainable business models has been vital for so many companies seeking to go beyond net zero. I asked her how companies can reach those target they set, and then even transcend them.

**Kara:** Yeah, I think for me, what's interesting is if I look at sort of a two by two matrix, this helps me visualize if net zero is sort of in the center, we're not too high, too low, in that matrix, that's a really great place to be a good target to hit. But I think above net zero are things that can lead to being more responsible and more regenerative.

So, I often like to talk about things related to being regenerative, which means we're not just trying to meet that midway target, but trying to exceed and be thinking about social and environmental things together and holistically when we're trying to hit a better future. At frog, we're really looking at going beyond net zero, by talking about the social, environmental and climate impacts in the work that we do.

**Liz:** To do this, frog, has put together four pillars, which described the new business models we're going to need to begin implementing if we want to reach our climate targets,

**Kara:** The four pillars really focus on, what we're calling sustainable experience. Often in this scenario, science is not enough to convince everyone. So we like to talk in stories and experiences for people. So really looking at human and planet centric, experiences for customers, employees, you name it, and really focusing on the delivery of products, services, and environments that can really align with what we like to call a next economy.

One of our other clients we've worked with, looked at how can we get rid of single use takeaway restaurant packaging, which was a really big issue during COVID. And they've built an entire business around reusable packaging for, and reusable material to be able to enable, you know, enjoyable food to come to somebody's home.

And by taking out that obstacle, what we think is a problem and finding a better solution that's more sustainable, they're helping to make that experience more positive for customers, but also more positive for the planet.

**Liz:** The next pillar focuses on creating new sustainable business models for existing brands. The next economy for brands.

Can you tell me a little bit about what you do to help them to create a sustainable strategic purpose?

**Kara:** Yeah, we work with brands to help them think through kind of what is the way you want to show up in the world. And I can give you an example. And so working with a university that really realized that the role they were playing, they're building up, you know, sort of the future fashion makers. We were really able to unpack what was going to be different about the way the brand was going to show up. And they happened to be doing a sort of a rebuild of one of their buildings. And this was a real catalyst for thinking through strategically, what was this new building going to represent and reflect.

And it was really a very collaborative experience for us to help them think through all through remote workshops, but inviting students, alumni, industry, faculty, all to come to the same table and to talk about what did it mean for them to really make a change. And I think one of the key things I walk away with that is, was so critical to the success of this project, was really the humility with which the key woman who we worked with came to the table and said, I don't know all the answers. I don't know how to do this. But I'm very open to collaborating with frog and with the rest of my team to be able to come and show up differently and in a new way. And it's inspiring, you know, revamping of curriculum, it's inspiring a new way to onboard students, a new way to recruit, a new way to develop the entire program.

And I think that for me is how a next economy brand has to think.

**Liz:** The third pillar, Kara calls the next economy teams. This means that workers are also involved in the move to net zero, not being left behind. It's organizational design that pushes through sustainable innovation.

**Kara:** In the situation we find ourselves in, we're very aware of that to create a future business, and have it be successful, it does take people. And it takes their talent and their abilities and tools and strategies to really enable them to deliver in this next economy that looks a little bit different perhaps than it does today.

**Liz:** We'll be unpacking these issues much further in part two, but now for the final pillar, regenerative ventures. A net zero future, one filled with the potential of renewable energies won't just require existing brands to change the way they do things. It is going to open up new ventures that we currently can't even conceive of.

**Kara:** The other pillar is regenerative ventures, where we're really aware that the next economy is going to require new types of businesses that don't exist today.

**Liz:** I wanted to dig further into this, to find out about what some of these new ventures might look like. And luckily, Kara put me in touch with a company at the forefront of making a positive, sustainable change, a company which seeks to create something truly carbon negative. They are called Made of Air.

**Allison Dring:** I think for Made of Air, the whole purpose of the company is to reverse climate change.

**Liz:** This is Alison Dring, the CEO and co-founder of made of air a carbon negative materials company who take low value wood waste and transform it into high value thermoplastics that can reverse the advance of climate change. These materials can be formed with industry standard production methods, converting manufactured products, which traditionally produce emissions into permanent carbon sink.

**Allison:** So Made of Air is a climate company. And I say that because what we make are thermoplastic, carbon, negative materials. And we're producing resources that manufacturers can use to create products that can store carbon from the atmosphere.

What we are as a climate company and our purpose is to reverse climate change. And the way that we do that is by producing carbon negative materials that enable manufactured goods to store carbon from the atmosphere. And what we have is a net negative effect. We're taking more CO2 out of the air by using our materials that we create in our process.

**Liz:** That's, that's fascinating. So can you give me an example of, you know, what a carbon negative materials might be and how it has manifested in some of these manufacturing products?

**Allison:** Sure. So a carbon negative material is really one that uses more CO2 out of the atmosphere than it produces. In our case, we're making a thermoplastic material and it's a biochar-based material that we look at wood waste.

And instead of letting that waste decay and let all the CO2 that stored in that material go back in the atmosphere. We're converting it into biochar. And when we take that step, we're taking all the CO2 that's stored in that material and converting it into carbon. And it's a locked process. You won't see that CO2 go back into the atmosphere for thousands of years.

So in this way, we are permanently taking CO2 out of it. There's an enormous demand from our population to grow and to provide housing and all the products that we need. This is a chance we have to take a carbon removal strategy and scale it up. And that's really what Made of Air is doing.

**Liz:** What are some of the products that Made of Air materials have actually created?

**Allison:** So Made of Air is producing a thermoplastic compound. We're currently applying it to durable products. So the built environment, a mobility and consumer goods, one focus and consumer goods is furniture. And the reason why we do that is we're looking at product lifetimes that are between 10 and 30 years.

We've produced with Audi; it is one of our partners. We've produced the material in the form of facade panels for their dealerships, and we've delivered one outside Munich. That's their flagship, dealership. And that's opened in April of this year.

We've also partnered with H&M late last year and produced a pair of sunglasses. So we did a production run with them and those sunglasses became the first ever carbon storing sunglasses. And we're certainly excited about the future with H&M looking into their supply chain and really thinking about where the products within their huge supply chain that can have real impact on the climate.

**Liz:** Did you have any specific aha moment when you were starting on this journey?

**Allison:** Um, I've had several aha moments. One of the big aha moments for me was learning that plants, that trees are actually growing from nutrients in the air. I think that was a big turning point for me is something that I think that kids should learn.

And in first grade, you know, this is, it's hard for me that this, that that point came so late. It made me look at the planet differently. Thinking about plants doing this kind of very amazing thing, photosynthesis and absorbing CO2 and kind of building blocks of plants coming from that. And it made me look at the universe differently.

This really being on a planet that can do this, thinking about sustainability, thinking about our climate targets and the next 40 50 years, we have finite resources. And we have historically taken our resources from below ground. And we're seeing a kind of shift happen now where our resources are going to have to come from above the ground.

We're going to need food. We're going to need to house people. We need to build cities. We need to sustain wildlife. We have to have carbon sinks and we're really looking at maxing out the performance of that land. I think that was a big moment for me was realizing that this is a finite system and we have to start thinking about what are the cycles involved.

And we can even look beyond the physical things we're seeing, and we can start thinking about our atmosphere and what we can harvest from there.

**Liz:** Given all Alison has said, it's clear that the challenges of going beyond that zero are vast, especially for large organizations whose carbon footprints are tied up with supply chains and broader issues.

As such, it's important to also look at the challenges that these companies face in the move to a sustainable future. What are the obstacles? What are the blockers? Understanding this will show us the way to affect real change. I went back to Florent to find out. What are the main blockers to achieving net zero for most businesses?

**Florent:** So the main blockers to achieve a net zero: speed and scale. Reaching speed and scale. We saw in the previous wave of transformation and digital transformation wave in the past two decades that a lot of companies engage in large transformation. But it takes a lot of time to go through a lot of POCs, it costs a lot of money, and it took them basically two decades to put that scale digital transformation.

For sustainability, we don't have that time. So, we need speed and scale in adopting more sustainable ways of living. What is preventing that is awareness. It is to be raised. Even though it's all over the press, understanding of the impact of what companies need to do and what at the operational level people need to adapt to reduce their mission.

Secondly, technology is out there but there are not yet deployed at scale. Investing in new technology, adopting and deploying this technology across the organization in all countries will require a significant amount of time and we will need a lot of investment. So, finding new economic model to finance social investment and accelerate the deployment of green technology is a second blocker.

The third blocker, it's regulations. A lot of the technology which exists today and are not yet scaled could be very much more easily deployed if regulation were a bit adapted or changed.

We did a report last year with the breakthrough technology organization that identified over 55 technologies that have a positive impact on the planet. One of the findings of the report is that technologies are there but the regulation is often not adapted to enable the deployment of technology.

**Liz:** Kiri agrees with this, particularly on the idea of regulation because governance plays a vital role in achieving net zero.

Is it governments that need to have a bigger role to play, to push for going back zero?

**Kiri:** Exactly. It's about the governance. So what we see is that sustainability is still a topic for marketing and communication people or corporate social responsibility people, but it's not officially sat within the board agenda.

So actually, what we would consider is that every board has a sustainability hat and that every company has an own sustainability unit with scientists. And first, you have to find the right data. Like I said, you have to define what you really would like to achieve and ask the question if this is really going to work because you have all the assets you need and therefore you need to first integrate your own sustainability unit with data scientists, with sustainability leaders who have a clear understanding of climate impacts who know how to transform this into new ideas, into innovation, into new business models and who are able to drive this proactively because they are decision makers.

What we see currently is that most of the sustainability units, they are not buying centers because it's not easy to incentivize sustainability. So, the return on sustainability invest. So, asking the question, what do you need? What kind of amount of investment do you need to achieve real sustainability? That's the question.

**Liz:** Well, it seems like that that's a blocker that we're facing. Can you tell me about a few other, the blockers in the companies are facing when they're trying to achieve net?

**Kiri:** Yeah. So, like I said, the fundament around this is the dataset. Most of the companies haven't started to track their data.

And they're not keen on scope one, scope two, scope three emissions data. So, meaning what kind of internal data, external data and data from your suppliers do you need to track to achieve your goals. And obviously, it might be not so easy for some of the companies, but this is as it is with all transformations, you need to start the change process somewhere, somehow, and then you need to invest in that.

And today we do have these tools. We do have systems which can track your CO2 emissions automatically. We do have data sets where we can benchmark them. But you need to set it up and you need to have not only one person driving this, you need to have kind of an army doing this because CO2 emits in every production, in everything we are doing. You're losing energy. And you need to find the right data.

**Liz:** For Kiri, data tracking is vital ass companies gear up to fully invest in a sustainable future. It's something that will allow a broader view so that new business models can be appropriately and efficiently enacted. Kara agrees, but also tends to think about it in a bigger way. I wanted to know whether having a grand vision of going beyond net zero could actually be in some ways counterproductive. Whether setting huge targets for 20 years in the future could in fact be detrimental to the fight in the here and now. One question though, do you think having this big vision prevents us from reaching net zero or targets in the here and now?

**Kara:** Well, I think it's a little bit of both, right? I think all these topics we're speaking of today are systemic challenges. And so, when I have a big vision, I like to think of it like I have a bird's-eye view. I can look over, you know, the come fly up high above something and I can see all of the parts. And I think that for me, helps me to see the connectedness of all the decisions that might be made.

And when I, as an employee in an organization, understand those connections, that big vision helps me to see my part. And I, you know, I liken it to a body. You know, the brain is telling my hand what to do or my mouth to

speak, or my eyes to open and shut. I mean, if I don't see the whole, and I don't understand the whole, then, you know, it's sort of like part of my appendage gets cut off and doesn't have, you know, a fully, you know, a full comprehension of what's possible.

That being said, if you only look from up above and you don't see where some of the problematic areas are in this blueprint, then you may either just focus attention on the problematic areas and not look at the flows between the two areas and understand that there's impacts. And there's a domino effect of if we don't do this, it'll affect that.

Uh, then I think we, we also miss an opportunity. I liken it to being a bit like a hawk. You know, a hawk is going to fly above and look at the target and go down. But there are definitely steps between flying above and being on the ground that give different perspective. As you get closer to the ground, you have different perspectives.

And if you don't connect to what's happening on the ground and you only stay up in a visionary space, you miss some of the interesting nuances of your organization that could make small change quite quickly. That may not feel like it's leading to the vision quite yet, but because they're connected, it all plays together and all creates a more long lasting result.

**Liz:** You know, we were talking about that journey. And the journey that the hawk is taking to get from inflight to on the ground. And we talked about some of the steps that you took. Can you talk a bit about the activities that might be counterproductive that you see from some of the companies that are, that they're doing?

**Kara:** Well? I think what I witnessed is that people are just trying to do their best to be quite honest. And I think, you know, a lot of this rides on a human patience, because there's a lot of things that you can do and data can tell you a lot. Science can tell us a lot, and that's all been available to us actually for quite some time.

But I think what is counterproductive is when we continue to push the idea that we need to lower emissions, or we need to do, you know, something different, but we don't give people a path to do it. So it's counterproductive for me to talk about strategies without steps that the base, you know, the consumer could take or the employee could take in order to actually feel like a sense of success or accomplishment and getting closer to the goal that we're all striving for.

So, to be somebody who just talks about net zero or talks about different kinds of sustainability initiatives, and not give your employees or your customer a path to achieve it. Well, obviously, you know, that becomes counterproductive.

**Liz:** It's easy in the conversation about climate change, sustainability and reaching net zero to become embroiled in a state of perpetual pessimism, to look at the big picture and think that perhaps the mountain we have to climb might be insurmountable.

And given the challenges we've now addressed when it comes to reaching and even going beyond that zero, it's easy to see. Is there a clear route to head, are these goals going to be reached in time so that catastrophic climate change won't affect us all? In the next episode, we'll look at some of the most inspiring work being done across the globe to ensure this isn't the case.

We'll be hearing real stories about the people currently involved in polluting industries to see how companies are ensuring that no one is left behind as we move fully towards renewable energies and a sustainable future. We'll see you then.

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