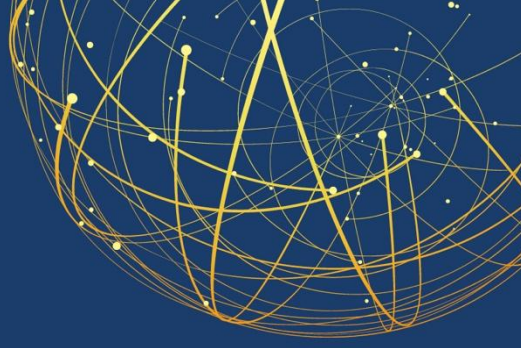

NEW ALLIANCES, NEW MOMENTUM: INVESTING IN SUSTAINABILITY

Leslie Kaufman 00:08

Hello, everyone. I'm getting a little feedback there. I'm Leslie Kaufman. I'm a senior reporter with Bloomberg. Thank you for coming to our panel on a subject that, certainly for me, is as important as it's ever been. It's about our future and how we're going to invest in sustainable energy and a sustainable future. I've been doing this panel in some form at this conference for five years now, and the background and energy around this issue couldn't be more different in terms of leadership here in the United States, in terms of how people are considering this internationally and, of course, demands on the system like AI and the war in Iran. So, fortunately for us, we have an incredible panel here, people who approach this issue from a lot of different perspectives. There are some people who have private money, some people who have public money, some people who have country money, some people are looking at nature-based solutions. We're going to ask them to weigh in at this incredibly crucial time. I'm going to ask them to each introduce themselves very briefly and just talk about where in the continuum of investors they sit. And I'm going to ask them too, as part of this first question, just a quick round on the biggest disruption to what they've been trying to do that they're seeing, and then we'll move on to how we're thinking about those disruptions. So let's start way down there at the far end, if you don't mind. Fred, you want to kick it off?

Frederick Teo 01:41

Sure. Good morning, everybody. So my name is Fred, and I'm from GenZero, which is a climate investor based in Singapore. We are wholly owned by Temasek in Singapore. Given an initial capital commitment of SGD 5 billion, give or take about USD 3.7 billion, to invest into three broad areas in the climate: technology solutions, nature as well as carbon market solutions. We are a double-bottom-line investor, so that means that in addition to delivering sustainable financial returns, we have to show measurable climate impact in the form of carbon tons avoided or removed from the investments that we make.

Leslie Kaufman 02:19

Terrific. Peter?

Peter Seligmann 02:23

Let's see. Almost good afternoon. Good morning. My name is Peter Seligmann, and I have a long history of being involved in the not-for-profit world, starting a group called Conservation International that I chair, and an organization called Nia Tero that just works with indigenous peoples on supporting their efforts to secure guardianship of their territories. I'm here today as the chairman of Silvania, and Silvania is a new fund. It's a Swiss-based fund that was created by some families to demonstrate that nature is an investable asset class. And the rationale for the creation of this fund was that we do not believe that philanthropic money and public money on its own can really address at scale the needs that we're facing. And so that's why we launched Silvania, and we're making investments all over the world, whether it's going long on nature-based carbon or looking at watersheds or looking at tokenization of territory to produce hydropower, reforestation, afforestation. And we're open to doing anything. We just want to prove that investing in nature is going to reduce risk to future societies and will create investable opportunities for those that are seeking wealth.

Leslie Kaufman 03:44

And a lot of people are new funds, and we have some other people interested in nature. But the part two of the question, which I want to bring you back to, if you had to name one disruption that you're really feeling this year, what would you say that is?

Peter Seligmann 03:58

It's hard to limit it to one. There are obviously massive headwinds. I'm obviously concerned about the impact that the demand for AI creates in terms of the extraordinary increase in demand for fossil fuel and available energy and what that will do to decision-making, the impact of AI and the need for data centers on water. And I guess not really relating to the environmental side, but really to the social side, I'm really concerned about the impact that AI is going to have on unemployment. Yesterday, I had a conversation with the CEO of Verizon, who is concerned and seriously believes that the development of AI at the way it is accelerating will result in the short term in 15 percent to 20 percent of unemployment.

Leslie Kaufman 04:54

As the mother of two 20-year-old children, believe me, he's not the only one who's deeply worried. I think everyone is. Régine, do you want to weigh in, but maybe keep it to the climate?

Régine Clément 05:06

Sure. Nice to see everyone. I'm Régine Clément, CEO of CREO. We're a non-profit. We're a field catalyst, really, promoting climate finance in private markets. We do this by working with asset owners, so primarily family offices. We work with about 200 members that deploy billions of dollars annually into the space. Checks and sizes from USD 500 thousand to about USD 350 million across all asset classes and sectors, so we're quite broad. And, really, the idea is that families really play a unique role in this ecosystem in being able to de-risk early-stage technologies and solutions in the space, but also de-risk first-time managers. For example, they'll anchor funds or other financial instruments or strategies. And we've evolved quite a bit. Back in 2011, we were mostly investing in energy efficiency and built environments. Today, we invest in every sector across every asset classes. Did you want me to address the disruption?

Leslie Kaufman 06:14

I do.

Régine Clément 06:15

A couple of things. So, we're definitely paying attention to the war in the Gulf. In speaking to several experts last week in London, our understanding is that this is probably going to be more prolonged than people expect. And the question I'm posing—and posing with our community—is: If we're going to be facing volatility and uncertainty in a prolonged way, I think humans, we're very good at solving short-term shocks with short-term solutions, given the volatility of the oil and energy prices. And we don't see this only as an energy shock or an oil shock. We see this as a supply chain shock. It is not only about the transportation and access to oil and gas, but also a lot of various commodities that fit across all kinds of products. And so we're keeping an eye on it. We believe that for those regions that are net importers of total energy, we hope that this might be a signal for change in terms of behavior and really accelerating, because we feel that energy security is becoming more and more energy independence and renewable energy distribution—

Leslie Kaufman 07:37

—So we're going to return to this topic in a big way. Because I do think some people think this is a major shift going on, and some people do not, and we should have that discussion.

Régine Clément 07:46

Yep.

Leslie Kaufman 07:47

But Raph.

Raphael Arndt 07:49

Thank you. And good morning. So I'm the CEO of the Future Fund, which is the Australian government's sovereign wealth fund. It's about just over a quarter of a trillion USD. We invest now in everything. And so we do quite a bit in renewable energy and decarbonization ideas through venture capital, infrastructure, data centers, power generation, transmission, all of that. It competes with all the other assets in the portfolio. And so I think, in terms of disruption—there's so many in the world, we could talk for hours—the most relevant one, I think, is the world's just transitioned from a period after the financial crisis where money was free. So there was monetary policy stimulus that pushed interest rates to zero or negative. Capital was free. Most of the ideas we had didn't require a lot of capital, all the tech investing, and so we essentially sweated our assets for a period as the world. And we've now moved into a world post-COVID, and this energy shock just makes it worse, where actually there's so many demands for capital in the real world. So de-globalization is happening, rebuilding supply chains, defense spending and defense infrastructure is rising. We've got the AI investment boom happening. Now we're adding more energy resilience infrastructure, no doubt. We'll talk about that. And so the sort of reinvestment in the energy systems and the whole economy, if we're decarbonizing, has to compete for capital across all of that now. And the cost of capital is just going up because there's so many demands on capital, and governments are borrowing more and more money too, so everything is going to get more expensive.

Leslie Kaufman 09:43

That's fascinating. Majid?

His Excellency Majid Al Suwaidi 09:46

Majid Al-Suwaidi. It's a real pleasure to be here. Thank you so much for having me. Altérra, if you don't know, was launched at COP28. We are mobilizing USD 30 billion with the aim to catalyze USD 250 billion over time. We invest in clean energy and the energy transition, decarbonization industry, climate tech and what we call sustainable living, which allows us to do things like adaptation, water agriculture, a whole suite of things. We believe that climate touches everything, and so we should be able to invest in everything. We take a very expansive approach. We have a unique climate impact framework that we use that guides our investments. But at the end of the day, we're commercial. And the whole purpose is, like many on the panel here, is to show the private sector that you can invest in these sectors and that you can make returns, but, most importantly, you can do that while achieving the impact that we all need to see in addressing climate change and the energy challenge that we're facing—that's coming to us.

Leslie Kaufman 10:48

Yeah. So we've agreed that we're in a period of disruption. I guess the next question is: What are you doing to adapt? If you think about the couple things you're doing, are you moving to new regions, new sources of energy? Is there a move, most of all because of the war? Is it going to be temporary or long-term towards renewable energy? In other words, are we getting another breath of air towards this? And, Majid, let's go back the other way. Why don't we start with you?

His Excellency Majid Al Suwaidi 11:20

Well, I think it's a very interesting question. The thesis based on which we're investing has been based on a strategy that the UAE government has had for many, many years of diversifying our energy system, diversifying our economy. The UAE is one of the world's largest oil and gas producers. We've been able to build our country based off of oil and gas. But very early on we decided to diversify our economy away from oil and gas, and today we're about 70 percent non-oil and gas. And Altérra's really a part of that journey. So we see these as sort of long-term trends. Yes, there's an oil and gas disruption perhaps today, but it remains to be seen how different it is to the other price shocks we've seen over time. And what we always come back to is that we are not investing based on short-term price shocks. We're investing against long-term trends that are plain to see. We know that energy demand is increasing. That has been accentuated by this new AI revolution we're seeing. The developing world is growing. Remember, a big part of our mandate is to mobilize investment to the Global South. The populations in these regions are moving—

Leslie Kaufman 12:41

—Shifting—

His Excellency Majid Al Suwaidi 12:41

—Shifting economically. And the energy demand that that's going to create is simply an economic opportunity that we would all be remiss to miss out on.

Leslie Kaufman 12:55

So I'm hoping that you will give us a slightly different perspective on this. Before I do, I forgot to mention: Every once in a while behind me, you're going to see a QR code. This is a place where you can pick it up; you can look; you can send us questions. So, as we're going along, and if you think, "Wow, I really want to follow up on that," that would be how you do it. You'll get the QR code, and when you see it, please feel free to send me a question, and I will look. So, shocks we're seeing now, including the war: long-term impact or not? Are you seeing things adjust, and, if so, how are they adjusting?

Raphael Arndt 13:33

So I think the war in the Middle East is just one manifestation of what's happening in the world, which is everything's changing. The policymakers, the people who make the decisions—especially at the geopolitical level—they're tearing up the rulebook, and they're just starting fresh. And we can't predict it. I think that's the key. We can't predict it. So, actually, for those who were here on Sunday afternoon, they might've seen Kristalina Georgieva from the IMF, and she said, for the first time ever, they haven't produced a forecast. They've produced a range of scenarios, because they don't know what's going to happen. And so I think for those who've studied risk theory, we're moving from the area of trying to understand and adapt to risks, to uncertainties—uncertainties being unknowable. And so, for our point of view, the word of the moment is resilience. It's like we don't know what's going to happen, but we need to survive it and then pivot into it. And so, as the CEO of an organization that has a whole lot of talented people that can do a whole lot of different things anywhere, really what we're trying to do is build a culture and a mindset that is open-minded, that has a whole lot of different diverse people with diverse backgrounds, so we can question the status quo, the things we've learned in grad school or in our careers to this point. And so when things change, like Strait of Hormuz being blockaded, we can say: what does that mean from first principles, and how do we adapt to it? And then we've built all the tools already, so we can be really responsive really quickly.

Leslie Kaufman 15:10

Well, that's great, but it's not specific. Have you changed anything since the Strait of Hormuz has been blocked?

Raphael Arndt 15:14

Yeah, so I think the biggest takeaway, I would say: Who knows how long it's going to be closed? Probably no one in the world, actually. Not even the president, apparently. So why should we think it will be short? Maybe it will be short. Maybe things will bounce back. I really doubt that, because even if it does reopen tomorrow, I think there's a whole lot of countries in the Gulf that want to build resilience into their markets and supply chains, and that will take a whole lot of capital in years and focus and take it away from something else. There's a whole lot of other countries that are really dependent on Gulf oil, gas and other products. Think about Japan, China, Australia. They're going to build out supply chains. They're going to build storage. They're going to build out other types of energy. They won't necessarily do one. One thing I have really high conviction in: All those things are inflationary. All those things suck capital from the system. All those things will lead to higher interest rates. And so we're building out inflation protection, and we're just diversifying as many things as we can through the portfolio.

Leslie Kaufman 16:25

Okay. Régine, you have thoughts?

Régine Clément 16:27

Yeah, I'll take it in a bit of a different direction, but for CREO—so half of our families are American, and the other half are global. And I think when you're trying to invest in such uncertainty, you need to build relationships of trust in different parts of the world, because I think there is an interest to diversify, in part out of the US—not because it's not a good market. In fact, our families are doing quite a bit in the US right now. It is a very deep market, and, despite the dismantling of the IRA, there's still a lot to do. At the same time, because of this high unpredictability, our families are asking for us to develop relationships across the globe. Because at the end of the day, most investors will not invest if they don't have partners on the ground. And so we've been working on this over the past few years, and it's accelerated since the war. But otherwise, in terms of a shift in investment strategies, it was interesting to see—when the IRA came on board—there was a very rapid shift by our families moving towards power-to-X and green hydrogen when the IRA was dismantled, diving deeper into geothermal and advanced nuclear and other things in the US and diversifying to other countries.

Leslie Kaufman 17:47

So they're keeping this region as well? They're not losing this region; they're just adding other regions?

Régine Clément 17:53

Exactly. That's what they're doing. But what I was going to say is with the Gulf War, the uncertainty is so high that I think our families are still investing in the space, but maybe have not yet shifted their strategies. They're kind of waiting to see if any change needs to be done.

Leslie Kaufman 18:12

I feel like when I cover this, there's a lot of waiting. We keep hearing that there's a lot of people who have capital that they'd like to deploy, but there's a lot of uncertainty and waiting.

Régine Clément 18:20

Yeah. The difference is they're not waiting; they're deploying, but they're not changing their strategies yet.

Leslie Kaufman 18:27

Okay. Well, you've been playing in this field, Peter, for a lot of years, and you—

Peter Seligmann 18:31

—I am old.

Leslie Kaufman 18:33

Well I'm with you. I think it's wisdom. I'm for it. But you've seen shocks come and go, wars come and go. Is this going to change the playbook or not really? Are you changing any—

Peter Seligmann 18:45

—No, not changing anything. Intensifying. Just intensifying. If you think about it, I look at this climate and nature issue; I see it through multiple lenses. First, they're completely interconnected. That's the most important thing to recognize. You cannot separate nature from climate. The other piece that I think we have to recognize is that if we come up with an abundant, inexpensive, low-carbon fuel and we do not change the way we treat the natural world, we are still going to be screwed. So we have to be thinking about the crisis that we have to address in terms of the way we discard or disregard the health of ecological systems. And so I'm fearful for many reasons about the instability caused by the crises we're dealing with. But it does not change our investment strategy. We are looking for scalable investments that can demonstrate that if you protect the natural world, you can make money doing it. And we look at that from a perspective of: What does nature provide? It provides clean water, pollinators, food, everything that we need.

Leslie Kaufman 20:04

Right.

Peter Seligmann 20:04

And healthy ecological systems are the factories that do that for nothing. And so if you make an investment in protecting that factory, how do you get a return? And that's what we're focusing on. And if you can pull that off, that actually has enormous social benefits. And so I think that in essence, the AI issue that we address creates certain opportunities, and it creates opportunities in terms of communities are fearful for what's going to happen when a data center is built in their neighborhood. How do you link that concern with what percentage of that investment in the data center is actually going to take care of the community by securing a forest or a watershed, et cetera? So I think that we have to be doing kind of a jujitsu move on this and looking at: How do you take advantage of those stresses and strains and opportunities so that it becomes a benefit to community?

Leslie Kaufman 20:59

We're going to do—

Peter Seligmann 21:00

—And that's the intensity with which we look at this.

Leslie Kaufman 21:02

Because we're going to come back to AI, so I want to hear everyone's jujitsu moves on this. But Fred, this is like a topic that you love, right? Like natural systems. But you cover more than that, so.

Frederick Teo 21:12

Well, I cover more than that, but I think one of the things that you realize in attending climate conferences over the past six to 12 months is everybody is talking about what happened in the good old days, so many years ago, and then now things have changed completely. But that's not true, right? Obviously, we had tailwinds when we started out at GenZero, where everybody was piling in onto climate, people putting money into sustainability, and now we would say that we are facing a lot of headwinds. So I actually looked this up. So I'm not a sailor. I don't know whether any of you actually do sailing? Now, is it impossible to sail against the wind? It's not quite. There is a concept of tacking. So you may not be able to go directly against the wind, but you certainly can go at 45 degrees or 60 degrees off, and you will still be making progress, except it might be a bit slower, and you kind of have to zigzag your way through. So what this analogy tells us is that there are ways to navigate this. So I think I quite like the title of this entire panel, right? Because we are thinking about what kind of new alliances and momentum you can get. So I would think of focusing this on maybe three things, right? First, we have to reframe. So there is obviously very clearly a shift from focusing on the values of protecting the climate and investing in climate into what is the value, like Peter was saying, right? The value of investing into climate. Now, we have to focus on—perhaps—things that are enduring. If you ask yourself, anything that is renewable, marginal costs will tend to zero. This is fact. Now, and of course truth nowadays is kind of questionable: What is truth, right? I mean, but if I—

Peter Seligmann 22:49

—I believe you.

Frederick Teo 22:49

Oh, yeah. So if you're not into movies, what is the truth? Can you handle the truth? Okay, but whatever. Okay, so, but if you were to think about some of these enduring truths, facts that all of us can more or less agree with, you will realize now that as you move from values to value, nobody would disagree with cheaper, more abundant, more accessible energy. And today, in more places than ever before, renewable energy is the answer. But in places where it isn't, we have to then take on the second reframing, which is to move from being very purist and focused on just a very principled approach to climate investing to being somewhat pragmatic. So we are always dealing with a question of transition. As investors, we are very familiar with having to deal with trade-offs, right?

Leslie Kaufman 23:37

Can you give us a specific example of where you've moved from being a purist to being a pragmatic?

Frederick Teo 23:42

Sure. Like for example, if you are saying now that everything has got to be away from oil and gas, right, and you are only wanting to do solar. In some places where it's not possible, could gas, for example, be an intermediate transition, temporary kind of a fuel where we are able to have a lot more drop-in options, like for example, biomethane and biogas as a way of being able to transform the overall power sector rather than to go all in at once? Now, in some cases that might work; in some cases it might not. But the entire idea is to be open-minded rather than to see the world as binary options or black and white, this or that. The second area that I think is important for us is to think about rebalancing. Now, there is no better form of, I think, expressing that than this binary around mitigation and adaptation when it comes to climate investing. You kind of need both, just like you need tech and nature. You need both. You need removals avoidance, but you certainly need to have more adaptation now than ever before. Why? Because I think it is going to be extremely difficult to keep to this one-point-five, two-degree world. Now, if it is going to be more difficult to achieve that, then that means that in 2050, there will be a lot more carbon in the atmosphere. And for us to get back to a much better planet situation, you almost need to focus a little bit more on removals and certainly to adapt to the more climate impact world. And the final thing that I would say: So we have talked about reframing, we talked about rebalancing, and I think the final thing is that we need to recharge ourselves. As an investment community, we are always used to cycles. Come on, I mean like in the old days when there were no steam engines and everything, we depended on the winds that would change in different directions for where the sail ships would go, right? So, similarly, we are perhaps maybe facing the first major challenge to the climate investing thesis for a long time. But this will not be the first; it will not be the last. So we have got to adapt, like Leslie was saying. We've got to adapt to this new situation, and I think we can. Today, we have more capabilities and levers at our disposal than ever before to do this. We are now talking about blended finance to be able to address this question around cost of capital. We are talking about new technical solutions that are bringing to the front more possibilities of addressing the green premium. For example, last year the best-selling car in Singapore was a Chinese EV. People are not buying EVs in Singapore because they suddenly fall in love with the planet and want to protect the environment. They are buying EVs in droves because it's the cheapest way to drive. So the cost per kilometer is something like a third to half compared to—

Leslie Kaufman 26:15

—Yeah, I can't wait till I get mine. I can't wait till we're allowed to get them.

Frederick Teo 26:18

So that's why we need to refresh and recharge ourselves on this and create some momentum.

Leslie Kaufman 26:24

I want to do just a quick bonus round on AI, because AI—as we've also heard—has got promise, but it's also very demanding. It's taking capital, it's taking energy, but in theory it could solve problems. In theory, you could link data centers to commitments of money to do renewable. So when you look at AI—let's try and do this one a little quicker—just what we're seeing with AI, the problems or opportunities: Which are you seeing it as and how are you deploying it?

His Excellency Majid Al Suwaidi 26:56

I think that we look at AI the same way we look at other sectors in that: Where is it that we as Altérra can be useful? We're always thinking about: How can we be—how is our capital being catalytic? I think there's the energy story there that's the most important piece. We want to make sure that the new demand that's being created is as clean and green as possible. And so how can we be part of that story? But then I think there's a really interesting part in terms of the advancement that will come from the AI usage itself. Maybe we're managing grids better, maybe we're creating new materials, maybe that we are more energy efficient, maybe we're solving climate problems. And so there's many reasons to be optimistic about this revolution, but there are definitely challenges, and we need to make sure that—we get a lot of data centers in our pipeline and they're often labeled green. So we spend a lot of time thinking: Is this really a climate investment? And do we really need to do this? Since, as you said, there's a lot of capital going in that direction. Could we be better doing other things? And does it create opportunity in other spaces as well?

Leslie Kaufman 28:11

So what do you think? Net plus, net minus? I've sat on panels with solar CEOs who have said that—I'm looking at Amy, it was at her conference—Where Solar CEOs have told me that AI is just going to make solar so much more efficient than gas and oil that we can kiss it goodbye—very optimistic. But then there's the cost. There certainly is the competition for capital right now. So what are you thinking?

Raphael Arndt 28:36

All of the above, I think. So, yes, it's sucking a lot of capital. It's using a lot of energy. It will create some social issues. And on the other hand, we're already developing data centers in Australia and here in the US, where a hyperscaler is writing a contract for a new non-carbon-based energy source just for that data center that's stimulating new investment in new energy, green energy, that will stay in the grid long beyond the life of that data center. So that's a positive. I think the early build phase is inflationary, as I said, but, of course, will increase productivity and reduce inflation in due course. It will increase corporate margins. That puts more money in the system, and that lets us focus on the things we're talking about that are good for the environment. Particularly the nature thing I think is coming fast, and it got a lot of attention in our industry, but now it's just on the back burner a bit because there's so many other short-term issues to deal with. So I think it's a great opportunity.

Leslie Kaufman 29:52

Régine, are you optimistic or pessimistic? Is it going to solve or is it going to just take so much out of the system at a crucial—

Régine Clément 29:59

—Yeah, I think for decarbonization and for nature, actually, AI is going to be a net positive. I agree there's a lot of other problems it will create that we'll need to put the right guardrails in place to make sure that it does serve us positively. But I think if we're smart about it, we can start thinking about various ways of unlocking value also in new asset classes—I think in climate.

Leslie Kaufman 30:25

So can you give one concrete example of it?

Régine Clément 30:28

Yeah. So we've been looking a lot at why is it that some of the TRL eight, nine technologies are—they're scaling, but they're not scaling fast enough, and they're not always scaling in the asset classes. So obviously, there's been a lot of capital that's gone to infra, when we think about large institutional asset owners.

Leslie Kaufman 30:54

Wait, I thought that was—

Régine Clément 30:54

Why hasn't it gone to PE? Why hasn't it gone to credit, private credit? So we think the combination of data, AI, some of the evolution in the insurance industry and reinsurance around risk transfer for technology performance and residual value for circularity could actually unlock, finally, senior tranches for very vanilla private credit for institutional asset owners, for example. So I think we have no choice but to adopt AI. We're using it a lot already in CREO, and you have to make it your friend.

Leslie Kaufman 31:39

So you saw some opportunities there, but specifically linking the data centers to promises not to ruin water or forests or that sort of thing, or energy.

Peter Seligmann 31:50

Yeah. So I should start out by saying I have a hard time figuring out how to use my iPhone. So for me to be able to give you intelligence on AI is way above my pay grade. So I'll just start out with that caveat. The Industrial Revolution, which took a couple of hundred years, had, as we are experiencing today, some dramatic unintended consequences. I think that the AI revolution is going to have unintended consequences, and we're going to feel them much, much faster. And I don't think we understand them yet. I don't think we have any of the guardrails in place. I don't think we have the intentionality or the political will to come up with the guardrails. That's what I'm really worried about.

Leslie Kaufman 32:41

Right—our bank accounts, then we'll—

Peter Seligmann 32:44

Yeah. There will be project-by-project benefits. There will be an acceleration of solutions and understandings and designs that will really greatly reduce the cost of the work that we do, and I'd love that. And that will be the upside. I do not understand yet the downside, but I'm very worried about the downside because I don't think that we are prepared, as I said just a second ago, to actually anticipate those guardrails. The acceleration of AI is not that way. It's this way. It's a vertical acceleration, and how do you handle that? And so I think that that's what we need to be aware of, and we need to have a lot of humility amongst ourselves, saying that we can have a guessing game. But I listened last night to a couple people that were brilliant, that had totally diametrically different perspectives and opinions as to what the impact was going to be. So I think that I'll just wrap up with that. If I can just say: I think that what Fred said earlier about the transition that's required in our investments and our patience is really important. We will not have perfect wins in these initial investments. But if we are recognizing that we need to.—when

we do a major forest initiative, as an example, we're not just going to be restoring degraded landscapes with native species. There will be a mix of commercial species as well. And some will be exotic so that there's a fast revenue generation. So we're going to be balancing everything out. We have to become smarter than that.

Leslie Kaufman 34:34

Right. And we'll talk about that when we're talking about communication. But, Fred, you gave a nice talk about how you've got to go with the winds, and I'm with you, but you still have to live in the moment and make decisions. And so here you are. AI's here. What specifically are you doing? Are you investing? Are you waiting to see? How is this working for you?

Frederick Teo 34:57

No. Clearly, all of us have to adapt to the impact of AI, right? In everything we do, whether it is from a sector perspective, the impact of AI on climate, or the way that we do our work, even as an investment firm. But when it comes to AI, I always think it's better to be artificially intelligent than to be genuinely stupid. So I think you've got to embrace AI. I would imagine that there are only two things that I would call out, maybe for us to take note of. The ability to access AI clearly would democratize your ability to do wonderful things for a lot of people, right? You no longer perhaps need specialist capabilities. AI can assist. But what it does not do is to absolve us from the requirement to think. So one of the most important skill sets now is thinking about how to prompt, right? When we are using and interfacing with all our AI capabilities. So how do you ask questions? How do you frame that question? What is the issue that you really need to understand? Now, then what you have is massive computing power that can digest a lot of information and synthesize that and give it something back to you. But sorry, Leslie, you wanted to say something.

Leslie Kaufman 36:08

No, I was going to say: So right now, I want to push you to be concrete. You're mostly using AI just for prompts to push it to do questions, or are you actually investing in it and thinking about it, or are you planning how to mitigate? What, concretely, are you doing?

Frederick Teo 36:23

Ah, okay. So I will come to that, but let me conclude with the second part, right? So the first one is that you need to actually frame the issues correctly so that you understand it. And the second one is to actually, more importantly, focus on non-obvious insights, right? So you don't want to use AI to confirm biases. You want to think about what are some of the non-obvious things that AI can help you to distill. So I'll give you an example: Today, we talk about insurance, right? So we understand that there's physical risk,

so we always insure. We insure a warehouse, we insure our facilities and say, "Hey, guard against forest fires, guard against flooding," and so on and so forth. But what we often don't tease out really are the second-order or third-order business disruption risks that we face. So imagine if I'm an e-commerce company and I've got a warehouse and I insure it against, say, forest fires or whatever it is, right? But nothing might happen to my warehouse. However, a river might get flooded that basically washes away the only bridge that connects my warehouse to, say, the city where I need to deliver goods. Okay? But because I'm only focused on the physical risk associated with my warehouse, the insurance will almost never pay out, because nothing will happen. However, that bridge is going to cost me a lot in terms of the liquidated damages and the inability to actually deliver my goods. But when I am just thinking through the risk that I'm facing and I don't have the power of AI or other big machine learning or big data crunching to be able to analyze my risk, all I'm fixated with is the distance that I can see. What it allows us now to do is to consider many other second-order, third-order indirect effects, and that is the power of AI, and that's how we can invest.

Leslie Kaufman 37:56

And how are you—are you using it that way right now?

Frederick Teo 37:59

Yeah, I think that ultimately AI is going to be probably a massive opportunity, not just for the reasons that Peter said in terms of catalyzing the development and scale-up of renewable energy, but in terms of the ability to develop new, interesting solutions for us to solve the climate problem.

Leslie Kaufman 38:16

So I want to talk to you about how you're communicating climate and how you're thinking about it right now. In the US, there's been a huge shift in even what people say, what we say on our government websites, and what people who are devoted to this issue are even willing to say out loud. I don't think that's the same globally. But I also wonder whether—when you're thinking and talking to investors, when you're talking to people putting the money in, when you're communicating at a public level—have you changed how you're talking about climate and the risk it poses? And I wanted to start with you.

Raphael Arndt 38:50

Yeah, thanks. So, as I said before, I work for the Australian government sovereign wealth fund. We turned 20 this week, so we've had several governments with different policies in this space. About a year ago, our investment mandate was changed explicitly to ask us to have regard to certain national priorities as defined, which included assisting the Australian economy to decarbonize and also to communicate much more and much more transparently about the things we're doing in this space. And so, actually, we've

really radically increased our resources. We're finding new things to invest in. We've increased quite a lot the portfolio in terms of the energy and transmission lines, the infrastructure side, but actually also on the venture capital side—we were talking about that before—and a little bit on the nature side, too. And we're building out at the moment—it'll probably be published in the next few months—a sort of quite a large responsible investment report, which will go into all those things.

Leslie Kaufman 39:53

Okay. Do you want to give a specific example?

Raphael Arndt 39:56

Well, I think we're still working it out, but I think that, I guess from our point of view, there are people with different political views always. You can never keep 100 percent of people happy as a public fund. But we're an investor that is trying to generate returns over the long run to help every taxpayer in Australia meet their pension liabilities, basically. And so we try to frame our investments in these type of things through the long-term investor lens. And, actually, it would be my view that if we accept the science, which we do, then—

Leslie Kaufman 40:35

—Bold of you—

Raphael Arndt 40:36

—And any type of responsible investment decision in the long run is just a good investment decision. If we're defoliating the environment, that's not likely to be a good business decision. If we're taking advantage of our workforce, if we have modern slavery in our supply chain, none of those things are good business decisions. So I think we just keep bringing it back to—we're doing this because we want to be a responsible long-term investor generating stable returns, and we'll be transparent about how we make those decisions. And we can defend those decisions every day of the week.

Leslie Kaufman 41:12

Majid, are you changing your language at all? How you approach this, how you talk about it?

His Excellency Majid Al Suwaidi 41:17

We were launched with a very clear mandate to be a climate fund, so that's what we do. But I think that we've always had a very practical approach to climate. We've worked very hard to bring our stakeholders on a journey to help them understand that when you invest in climate, you're investing across all asset classes, and you're investing across industry, technology, you're investing across energy. You're essentially investing in the future. And that through that, you can bring them on conversations about resilience, about diversification, about the trends, the mega trends that are happening. So we're a global fund, we invest around the world, and we haven't felt that tension perhaps as others may.

Leslie Kaufman 42:10

That maybe that others have. Régine, you have a lot of local, a lot of United States investors. Have you felt the need to change your language, how you approach what you say you're doing?

Régine Clément 42:27

Not really. We were founded, we've been climate since 2011, and we'll continue to be climate. We definitely use different vocabulary based on the audience we're talking to, and I think that's okay. We'll move from climate change, decarbonization to nature-positive, to extractive, to abundant, to planet and people. For us, it's all the same thing. It's just building a better future. And unfortunately climate is a politicized word, so we don't use it if we don't feel that it's useful, but if it is we use it. But we're pretty practical about it.

Leslie Kaufman 43:04

We can move to the next question. Unless, Peter? You're perking up. Do you want to—

Peter Seligmann 43:07

—Well, I just would say that I live in Montana, and there we say we bait the hook to catch the fish. And so it depends upon the audience that we speak to. With most of the folks that we work with, depending upon the audience, we don't really talk about climate change. We actually talk about the revenues that will be generated, about the reduction of the risk to the supply chain, or the risk to the cost to the community in terms of water pollution or air pollution. We talk about the resilience that's required, about the long-term horizon, and we try to find the language and the words that actually will make a difference to the investor and to the community. And I think we have to be very, very careful about the language we use because the language of the environmental movement and the climate movement is impenetrable. We use words that don't mean things to most people, and we have to actually change that vocabulary if we're actually going to be successful, and I think that's been the real shortcoming of the whole environmental effort, and it's why it's become—so I think that language is extremely important, and we have to think about how we communicate our messages so it resonates with the audiences we're talking to.

Leslie Kaufman 44:26

Well, so Fred, I'm going to change topics on you. We have 15 minutes left, and I want to get to questions. We actually have quite a lot of them. I wanted to talk to you about capital allocation. Let's say that roughly there's a trillion dollars in subsidies in this world going to mature technologies. And I'm not just talking about fossil fuels, though certainly, but also, even if you look at wind and solar. If you could wave a magic wand and take that trillion dollars and put it into something that you think is really promising, what would that be?

Frederick Tao 44:59

Fusion.

Leslie Kaufman 45:00

Fusion?

Frederick Tao 45:01

I think so.

Leslie Kaufman 45:02

Oh, fusion has been five years away since I've been covering it.

Frederick Tao 45:06

No, 50 years—

Leslie Kaufman 45:07

—It's more than five years.

Frederick Tao 45:07

Fifty years away. Not five years away. Maybe you're a lot younger than—well, but no, the reason why I think about fusion is because, to be honest, to answer that question, we've got to think about what will ultimately make the most sense and the greatest impact for dollar, right? The invest into the thing. It's true. The promise of fusion has always been there. We've been talking about it for decades, actually. But I think that we are today closer to getting to that 'Q equals 10' kind of a score, where every megawatt hour that you put in will come out with 10 megawatt hours of electricity, and I think we are getting closer and closer to that point. But this is where the subsidy question, I think that you're implicitly asking, is coming in. The only reason why many of these fusion startups today are getting closer and closer to the holy grail is because of the billions and billions of dollars that we have been putting into major multinational programs like ITER in France. So with that kind of multinational program, I think that that's still going to be slow. It's cumbersome because you have so many governments to coordinate. But what it does do is it creates an entire cottage industry of different supporting companies and capabilities that are springing up. And when you get extremely frustrated with how these things are actually going, then you start to be extremely creative about coming up with smaller fusion, perfecting the tokamak systems. And now we have stellarators, Z-pinch, and things like that. So I would put it into fusion. Ultimately, what we are going for is the cheapest clean energy that is enduring and secure. Right? And fusion, I think, would be one of those things.

Leslie Kaufman 46:39

Okay. You've got a trillion dollars.

Peter Seligmann 46:41

Thank you.

Leslie Kaufman 46:42

You're welcome. I'm generous that way.

Peter Seligmann 46:47

I think that the investments in renewables, in energy, most of that is actually now coming from the private sector because of the green juices, and I think that's really wonderful. I think there's major, major breakthroughs. Obviously, we've talked about the headwinds right now, but I think these are temporary headwinds. I think that the energy investments are going to continue to progress, and they'll be driven by private sector capital. What I would really encourage if I had this trillion dollars, I would look in new ideas. And I would look in new ideas, as you know, I'm really obsessed with what's the role of nature. I would be

looking, as an example, in investments in—what are the policy frameworks that can encourage investments in the security of nature? The country of Costa Rica, many years ago, came up with a concept called Payment for Ecosystem Services.

Leslie Kaufman 47:41

It's a great idea.

Peter Seligmann 47:42

Okay? Basically, the concept was really fundamental. It said that most of their energy was hydro energy, and that provided electricity for industry and for community. That water came from the highlands. A percentage of the revenues generated by the power industry was put back into the highlands to pay the farmers to keep the trees standing so they would continue to produce water. So the trees, the forest, became a profit base. Not cut down for crops, but it was actually the production. I think that we need to be looking at what are the policy investments that can happen in all countries around the world that actually encourage that. I would look at things like—this is a far-out idea, but if you recognize that every single nation's natural wealth depends upon its biological diversity, I would think that biodiversity, in essence, is a much stronger standard for a currency than gold. I would try to figure out: How do you actually begin to understand the relationship between healthy societies and nature? I would make investments of that kind, to try to allow us to evolve in our approach.

Leslie Kaufman 48:54

I like it. Instead of the gold standard, we'll have the pollinator standard, like how well is—

Peter Seligmann 48:58

—Why not?

Leslie Kaufman 48:58

—He's doing. Régine, okay, you have my largesse now.

Régine Clément 49:00

A trillion. Yeah. So I'm going to diversify. So I would invest in talent. If we're going to electrify, we need another million electricians in the US. So talent, I would invest in talent also for pension funds. I think a lot of pension funds have amazing commitments and have struggled in finding the talent they need to be able to deploy financial innovation to unlock some of that capital. If it's true that we believe, and there's some

of us who believe that we have about 80 to 85 percent of the solutions already, and therefore could we allow the government to just support outcomes-based projects as opposed to technology-specific subsidies? If we were to choose subsidies, I'd probably say, same, fusion and DAC. And actually, supporting the transition to regenerative agriculture. Thank you.

Leslie Kaufman 50:13

Great. So we are cutting into question time, so I'm going to ask—I hate to tell you—both of you, pretty quickly. But, so you don't get a full trillion because I feel like you already have a lot of money. But let's say I give you half a trillion.

Raphael Arndt 50:24

Well, the good news is I don't think we need a trillion to solve that problem, actually. I think I would say: education, research and scaling. And what I mean is, better educated countries, workforces that achieve a certain level of wealth, they want a better environment, a better way to live, a better life, and they'll invest in these things naturally, given the opportunities once they get to that point. The second thing, research, I think if we can make green energy, regenerative agriculture, all these things the cheapest form, then it'll happen on its own. Already today in Australia and I think in many parts of the world, solar plus grid-scale battery is the cheapest form of power generation. You don't need to give it a subsidy anymore because of the research and the scaling, and especially, obviously in China, the investment they've made into mass production of solar panels and batteries. And so I think if we need catalytic capital, hybrid capital, all those things, it's just those early stages of getting it going.

Leslie Kaufman 51:36

Right. But you still have the money, and I'd like to know what you're going to catalyze. So here's the money. You're going to experiment. Where is it going? What do you think is promising or exciting?

His Excellency Majid Al Suwaidi 51:45

Well, I'm going to not answer your question, actually. What I—

Leslie Kaufman 51:49

—Too much time in New York, okay.

His Excellency Majid Al Suwaidi 51:52

I think that we talk about mature technologies, we forget that the traditional energy sectors have been subsidized for years and years and continue to be so. We need to be supporting all energies because we have such demand coming down the pipeline that we need to be deploying as much energy as possible. We at Altérra kind of hope that that's the cleanest type of energy and that's what we invest in. But I just think the governments need to be supporting all forms of energy. Sure, they need to be investing in research and development, but the demand is so huge that we just need to be supporting every energy type as much as we can be.

Leslie Kaufman 52:32

Okay. Well, we have some interesting questions from the audience. Someone says, "Can we build momentum in the market by linking the health of the individual to the health of the ecosystems?" And they say, "Are you aware of the Human Exposome Project, looking at the health consequences of physical, biological chemical, and psychosocial exposures?" And I don't know if you are, you can answer that, but it is an interesting question because clearly human health and human ecosystems should be linked. I don't feel like the environmental community has done such a great job there. So, Peter, I know you're in this area. Do you have any thoughts?

Peter Seligmann 53:08

The answer is yes. It has to be. Because we have to think about the motivation for action, and the motivation for action is going to be how do we take care of our family? What we feed our kids, the kind of food they get is essential, and that really depends upon the quality of the water, the quality of the soil. If you go to China right now, it's so interesting. The largest pear production place on the planet Earth is in China, and all of the pear trees are pollinated by hand because all the bees have been killed. And so you'd really have to link health, and you have to link food together, and it comes connected to healthy ecological systems.

Leslie Kaufman 53:44

Actually I hadn't heard that. That's kind of—

Peter Seligmann 53:47

—It's amazing. Hand-pollinated. Literally every morning pollen's collected, put on brushes, and all the trees and the flowers are pollinated by hand.

Leslie Kaufman 53:58

Régine, this is a question. "Resilience, sustainability, nature is often hyper-localized. Everyone on the panel is deploying in billions, which is often not the size of the local need. What are the alliance or strategies of getting capital to the high volume, small scale front lines?"

Régine Clément 54:16

Yeah, that's where families can play a really important role. So families tend to invest locally in projects that they care about in their communities they care about and invest globally through a diversified portfolio. And so we try to work with our families at both levels. But I do think there's a lot more work to be done in terms of creating the models that enable not just ultra-high net worth to invest in their communities.

Leslie Kaufman 54:45

Well, but also just hyperlocal. Has anyone here got an example of something they're doing that's very hyperlocal?

His Excellency Majid Al Suwaidi 54:51

It's not what Altérra does.

Leslie Kaufman 54:52

It's not what you guys do.

Raphael Arndt 54:53

So actually, we did, some years ago, do a project in India through our private equity portfolio, where we were funding solar panels on individual businesses. But in this case, it was very commercial. It was because the power grid wasn't reliable, and they couldn't run their business, and the most reliable form of energy was putting solar panels on your roof. But we actually made good returns on that.

His Excellency Majid Al Suwaidi 55:18

I think there's also something to be said, and we've talked about this, there are different players for different parts of solving the climate problem, right? And philanthropy has a role, large funds have a role, sovereigns have a role. So I think that these things can link together, and we look to try to create these blended vehicles. But yeah, I think that different institutions bring different expertise to those challenges.

Leslie Kaufman 55:46

Fred, did you want to weigh in?

Frederick Tao 55:47

Yeah. Let me give an example of where some of our projects have actually been able to check more boxes than we imagined. And that's also partly the reason why I'm—like with Peter, we are a massive supporter of investing into nature because one of the benefits of nature projects on the ground is the ability to have many additional co-benefits. So one of the projects we invested in is actually a sustainable rice farming project in India. Now, the entire idea is to scale it up to be able to help many of the smallholder farmers, right? Because in Asia, farming and agriculture is actually a smallholder-farmer-type problem. Now, rice. Now, unlike in many other parts of the world, right, the top emitter in agriculture in Asia is typically rice, not cattle, okay? Because we are a rice-consuming region. Now, the idea here really was to help out the farmers transition into alternate wetting and drying practices. So, in other words, not continuous flooding of the rice fields. What does that do? It uses 30 percent to 50 percent less water, but as a result of that, much less anaerobic decomposition and far less methane emissions. So the business model is we would take the revenues from some of the methane credits, right? And there's revenue share, some of the benefit share with the local communities. But it's essentially teaching the farmers how to farm with less water and get the same result. Now, why does that matter? Other than improving, obviously, some of the livelihoods of the farmers, it is giving them the sustainability in their livelihoods, because can you imagine if you keep to the same practice and there is no more water? Because I asked the farmers, "Why are you guys now doing this when this practice has been known for a long, long time?" And they explained that over the past few years, rainfall in that part of India had dropped by 50 percent. Right? So if they don't shift the way that they are growing rice, it's not just about affecting their livelihoods, right? It's not just about the climate and methane emissions. It is also about our food resiliency in Asia and supply chain issues, right? So this is where I think we can actually have so many other benefits if we are prepared to open our minds to possibilities.

Leslie Kaufman 57:54

Well, I actually love that as our final answer because it gives us a little bit of hope. It's helping people locally, it's solving a problem, and it's giving people more food. And I think that's when we're doing investment at our best, it does all of that. So I want to thank our terrific panel for all your help and thank all of you for listening.

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