

Solutions for the Future Transcript

Samuel Lawrence Foundation

First Fridays

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Bart Ziegler: Welcome to everyone tuning in to join us for this very special September edition of the Samuel Lawrence Foundation's first Friday series. My name is Bart Ziegler and I'm the president of the Samuel Lawrence Foundation where we often focus on nuclear waste issues which sometimes feel hopeless. Today for a change we're focused on a topic that gives everyone hope, solutions. As part of our work we recognize that there's much work to be done both here in San Diego and around the globe to create a more sustainable planet. And the panelists we assemble for today's special edition of first Fridays are an international-minded group showing us a path forward.

I'll turn this over to our magnificent moderator CEO of Brooklyn Story Lab, Lance Gould to introduce our speakers.

Lance Gould: Thank you. Thank you, Bart and welcome to all.

This month, United Nations is hosting the Summit of the Future, a monumental gathering of world leaders, experts, and advocates all united by a common goal. Detectable are the most pressing global issues with innovative and forward-thinking solutions. Today, we have convened a panel of visionaries to discuss their own solutions to the future. These solutions will address critical challenges from climate change to energy independence to global health. These solutions are not just interested in tractable problems, but also at scale, can give us hope that all is far from lost and instead that the future could be exciting and full of opportunity.

So, joining us today as panelists we have in alphabetical order: Sarabeth Brockley, Senior Director of Climate Services at Carbon Better, which partners with organizations to guide them in the transition to a net zero emissions future through pragmatic approaches to the carbon market, she's based in New York. Dr. Kirsten Dunlop, CEO of Climate-KIC, Europe's largest public-private partnership focused on climate innovation based in Amsterdam.

Shannen Henry, founder of the Kalea Group, a sustainable fashion ecosystem committed to the decarbonization and decentralization of the global textile value chain, she travels back and forth between New York and BLA Italy. Vanessa Nakate, environmentalist, UNICEF Goodwill Ambassador, co-founder of TARD Foundation and author of a bigger picture based in Uganda.

Nithya Ramanathan, CEO and co-founder of nonprofit NextLeaf Analytics, a tech nonprofit dedicated to creating holistic data solutions for low resource health systems, partnering with under-resourced countries to make sure they have the data they need to improve the health of people, she's based in Los Angeles. And Josh Witten, founder of MakeSoil, a nonprofit that encourages people to participate in community regenerative agriculture through composting. In

terms of location, he is geoflexible, moving around the world doing what he can to help make soil grow, he's joining us today from Puerto Rico.

Thank you all for joining us at home and thank all of you on this panel for joining all over the world. For our first round of discussions, we'll speak with our panelists about their individual work and then in the second round of questions, we'll get their perspectives in a group format focusing more broadly on where we are in this moment and how we need to step up our actions. So let's start with Vanessa. You wrote this wonderful book, "A Bigger Picture", which I'm holding up right here, in which you noted that the ongoing degradation of the Amazon rainforest is widely condemned, even in Africa. And yet no one was talking about the destruction of Africa's own massively important rainforests, the Congo Basin, which is known as the planet's second lung. Tell us about the work that you're doing in the Congo Basin, which is in the country just next to your home country Uganda, and how you got into this work.

Vanessa Nakate: Thank you very much. My journey of activism started in 2018 when I started to do research about some of the challenges that the people in my country Uganda were facing and I got to learn that climate change was one of those challenges. For me that was the beginning of activism. I started to read about climate change to understand its causes and also understand its impacts because my background was business administration, so I did not have a lot of information about climate issues. When I realized that the people in my country were already being impacted by devastating climate disasters like droughts and floods I decided to take action by joining the Fridays for Future Movement and I held my very first climate strike in the first week of January in 2019. Later in 2019 I got invited to give a speech at a Rotary Club and I remember after giving that speech, one of the people asked me about the Congo Rainforest. He mentioned how so many people talk about the destruction of the Amazon but there is not much conversation about what is happening in the Congo Rainforest. In that moment I realized that I also did not know much about what was happening there. So I took an initiative to learn more about the Congo Forest. I got to learn that it was the second largest rainforest in the world and also the largest in Africa. And I believe that it's as essential as the Amazon rainforest. I remember reading an article that stuck with me that talked about how if the destruction in the Congo Basin Forest is not stopped, it could be lost by 2100. And this is a rainforest that is home to thousands of species, be it animal species, bad species, and also a place where 75 million people depend on its existence, either for food or access to medicine among others. So that is what really inspired me to start doing a daily strike, to raise awareness about the importance of the Congo Rainforest and how it's really vital in our fight to make this world a better place, and also to raise awareness about the destruction that was happening. Again, there was a lot of need for the environment.

Lance Gould: Just to ask one question, you said that you started a daily strike. Can you tell us what you were striking from? Was it as a student? Was it as an employee? Tell us about that.

Vanessa Nakate: So, 2019, I graduated in 2019. My common strike started while I was still a student, but when I started raising awareness about the Congo Rainforest, I had just graduated in 2019, and I was sharing most of the strikes in social media to help create awareness. And I remember some people actually would comment on the post saying that they didn't even know about the existence of the rainforest and it really made me realize that it is so easy for an entire ecosystem to be destroyed simply because people don't know about its existence

Lance Gould: Yeah, that's incredible. And the leadership that you've shown is so important. What were the reactions that you got initially from, say, people that you were close to, such as people in your family and people in your school community and others? Did you get any pushback?

Vanessa Nakate: by the time I stood, I got a number of responses to my climate strikes. So I'll talk about more of the responses that I got from the very first climate strike in January 2019.

And people were surprised. To start with, I went to school with it was quite embarrassing for me to do that. I got to the streets holding a placard to raise awareness. And also I'm familiar with... I persisted and had some embarrassment from participating in these climate strikes initially and was holding a placard in the streets.

Lance Gould: I was just recapping Vanessa because we've been having some audio...Yes, we can hear you now. You noted that you had some embarrassment from holding the placard in the street, but that you were getting a little bit of pushback from fellow students

Vanessa Nakate: Yeah, some of my colleagues from school thought it was embarrassing for me to do the climate strike and also some of the family members. But for the family members and friends, I got to know about this a year later on. When my father told me that he received messages and calls from relatives and friends telling him that I was embarrassing the family, by standing on the streets doing the climate strikes. But (my father) mentioned that he did not tell me that because he didn't want me to stop doing what I believed in. So he told me a year later on whereby those comments didn't really matter to me anymore. So there was push-pull, but there was also support from my parents and also my siblings. Because when I did my very first climate strike, I had some of my siblings and my cousins as well attended the strike.

Lance Gould: Well, thank you for that. I mean, you're demonstrating such real leadership like doing this in the face of people questioning your credibility and perseverance. So just an incredible story and thank you for your leadership there.

We're going to move to Kirsten now. Kirsten, you lead the Europe-based Climate-KIC, which is one of the founders of the Circular City Coalition. Cities occupy only 3% of land service on the planet, but account for the consumption of 75% of our resources and produce 60 to 80% of our total greenhouse chaos emissions. Tell us what the CCC, the Circular City Coalition, is doing to tackle this challenge.

Dr. Kirsten Dunlop: Thank you very much, Lance. And hello everybody. So, the Circular City Coalition is exactly what it says it is, except it goes a bit deeper than the usual kind of constellation of organizations that loosely get together and decide they might do a thing. This is a subset of organizations that are part of a bigger whole called the Systemic Climate Action Collaborative, which is a group of NGOs working all over the world on various forms of implementation of climate action, nature action, and people action, particularly addressing the climate action. So we're seeing questions of poverty and inequality, how to decarbonize and build, get to sustainable living, how to get to some form of climate resilience, viable climate resilience, and how to regenerate

nature. And those organizations have committed to stop doing what unfortunately is a feature of many of the of much of the work that we do, which is to end up competing with each other for funding or to compete with each other for airtime and instead kind of turn that inside out and say, we are going to create this deep, deep symbiotic based partnership, trust-based partnership, and work together, put our complementary capabilities together. And the context in which many of us have been working for some years, up to seven years in some cases, has been work of urban transformation and landscaping regeneration. I'm going to focus on the urban transformation because that's really what the Circular City Coalition is about. And this is five organizations or six organizations coming together. One of them is indeed Climate-KIC. Another is Pixar at Global, based in the US, Ripley, First Mile and Metabolic, also based in the Netherlands, and then NL, the Renewable Energy Company. And what we are forming, what we formed a coalition around is an ambition to help 30 US cities decarbonize by 2030, which would, like abridging across the Atlantic from what's happening in Europe, into what's happening in the US, but then also looking at what could happen in the US that are uniquely responding and anticipating some of the needs of communities in the US, particularly frontline and marginalised communities. So we're going up to 25% of US emissions associated with cities, which is 2% of the global emissions footprint. It sounds small but it's actually massive and it really is about a partnership to help cities sign up to our commitment and ambition for that order of change. This is very inspired by something that's happening in Europe where 112 cities have signed up what they call climate city contracts, which is an agreement that the city will decarbonize completely by 2030. So the next six years and we're talking Madrid, Rome and St. Paris.

So this is taking some of those principles and working with US cities and we have letters of support from cities like Atlanta or Charlotte, Cleveland, Sacramento, Pittsburgh, Philadelphia. Signing up for that kind of ambition but not as a top-down exercise, as a top down-bottom up sideways and a bubble, a partnership, a deep kind of multi-level multi-stakeholder, multi-actor partnership between local businesses, communities, and driving groups, really establishing like local innovation harms but above all taking the whole city as the perimeter of change. So having the ambition to drive the kind of transformation towards living well and living sustainably, living affordably and living with accessible available technologies that make life better, that make energy more affordable, that make the air cleaner, that make food much more resilient and sustainable and that create the kind of relationship with materials and resources that we need which is not an extractive relationship but a relationship with continual renewal. So this is about harnessing and working with cities in partnership over a period of 10 years, working through bringing in forensic analysis, community engagement, policy intervention, sandboxing to help get solutions tested on the ground and experimented but then working out where does existing legislation help but where does existing legislation or policy or procurement or permitting need to change, and it's about leveraging that through business models that start to create forms of a valuable cruel and renewal and community-based ownership that can then attract in much, much larger integrated multi-sided cash flows and business models that attract capital. So really building up systems transformation. This is about working with whole cities to create the places in which we begin to bring to life in front of our eyes, buy ourselves with ourselves and for each other, visions of what it means to live well, live sustainably in urban contexts. We need to do that because we need people to stay working

living well in cities where we can aggregate our needs and have less impact on nature, less impact on the environment and learn how to get smarter and smarter with the resources we've already got in circulation. So it's about systems, what we call systems innovation, which is really trying to not just come up with single solutions, run them out to capital in the markets and then imagine that at some point in a vague future, they will all join up into a new world order, but to kind of work the weaving work of putting all of those solutions together in places held by and made by the communities that are living with them and making sure that what we manage to do is create integrated whole systems change in the places we love.

Lance Gould: And above all, weaving seems to be the key word because you're noting how each city will do that weaving, but then you're also weaving 112 cities together in Europe, you're weaving together 30 cities in the US, and the collaborative that you mentioned is weaving together, I believe it's 15 nonprofits that are collectively trying to raise more money. As I understand the principles of that collaboration, you can better hope for seven-figure donations to the group than you can to one individual group, one individual organization. Thank you so much.

Dr. Kirsten Dunlop: We're just trying to solve a problem, which is there's a lot of capital interested in solutions, individual solutions that are exciting, that are, that are, give hope and possibility. The weaker problem we've got is all of those solutions somehow have to add up. And that's where somehow the money runs out and you don't quite get the resources in to really do all of that work, the piecing it together and making it work as a whole system, as a whole city. Living breathing, connected up, all sinking in the right way. That's what we're trying to solve for. Get those solutions joined up.

Lance Gould: Amazing. We'll hear more about that in the second round of our talk today, but now we're going to move on to Josh. Josh, your nonprofit, Make Soil, has turned composting into a global movement with 1200 sites in more than 70 countries. Tell us about how you're creating a worldwide distributed network for organics for self-vegling and therefore building a more resilient food system.

Josh Whiton: Sure. Glad to be here, Lance. Thank you. One way I frame kind of the whole problem of modernity is just that almost every aspect of civilization is out of harmony with the biosphere. And of course climate change, greenhouse gasses, these are one symptom, but we have many other symptoms. We have pollution, we have biodiversity loss, habitat loss, all these things. So believe it or not, that was my starting premise. Okay, we have a whole civilization out of harmony with the living planet. And how do you bring it into harmony? And there's many approaches, there's many strategies and what became apparent to me is that individuals were quite divorced from nature and quite divorced from understanding how nature works. That's left to a handful of experts now. Like the average student doesn't learn anything about how the planet works really by the time they've gotten out of college, no matter what they've learned, some specialized feel like finance or engineering. Still understanding very little about how the planet works. And so my simple idea was, is there a truly regenerative hands-on experience that gives the human race an experience of regeneration? So not just another documentary or edict or PDF to read, but like can we actually get them hands-on experiencing regeneration? And we don't have to go looking for that opportunity

because it's right under people's noses. Every single person is generating food waste, yard waste, organic matter, and all of that organic matter needs to go back into the ground. And today almost 90, 95% of it's going to landfills instead. So at MakeSoil we're focusing on this one single leverage point of getting individuals to bring their food scraps to a soil site, which is oftentimes just a motivated individual who we call a soil maker who opens up their backyard or their front yard or their community garden receives those food scraps. And together the community watches all of that organic matter transform back into new living soil and keeps that carbon capture keeps those nutrients from being heberged off to a landfill, builds community builds resilience and quite often they end up growing food together. So that's the experience we're scaling worldwide and it also happens to keep actual organics out of the landfill and turning into greenhouse gasses. But it really is an experience, a transformative experience that we're trying to spread so that then people after that experience can take a real interest and all these wonderful initiatives you're hearing about today.

Lance Gould: Thanks, Josh. And two things come to mind for a quick follow up here. One is, and you mentioned a little bit about this, but can you talk a little bit about how this is a win-win where you're not putting stuff in landfills and you're also taking carbon out of the atmosphere? It's actually a win-win-win, and you're also enriching the soil. And then secondly, tell us a little bit about top soil and how topsoil is so endangered and how this helps that.

Josh Whiton: Sure. So when I went looking for a solution to, again, this giant, gnarly problem of being a humanity and civilization, I found, you know, there's many, there's many possible solutions that have some upsides and some downsides, right? You've got some upsides to nuclear, you've got some downsides to nuclear, you've got some upsides to learning about bioengineering, but, you know, could you be opening Pandora's Box if you get the gene sequence wrong? There's a lot of things that have that kind of trade-off in society right now. But with this simple matter of keeping organics out of the landfill, there is no downside. This current modern practice of allowing food waste and yard waste, which is really carbon and nutrients that nature has already captured very elegantly through the miracle of photosynthesis, if we allow that to go to the landfill, we've just allowed a very, very absurd thing to happen because that is the lifeblood of our food system. Those nutrients need to go back into the food system, and that carbon that has already been captured by the plant needs to be locked into new living soil, not allowed to rot in a landfill where it's going to actually turn into methane and go up into the atmosphere. So this is one intervention that has zero downsides. If instead of allowing it to go to the landfill, which hurts us as a civilization and hurts us as a planet, we instead learn the practice of returning it to the soil, we secure the food system, we stop exacerbating climate change, and we actually have a regenerative experience that teaches us how to actually live in harmony with the planet. It's a win-win-win if we take this path instead.

Lance Gould: Amazing. Thank you so much, and thank you for breaking that down for us as it were. We're focusing on solutions today. We've heard from three of our guests so far. We're about to hear from another incredible solution. This is from Nithya. They also save lives. Tell us about Next Leaf's work, you're nonprofit.

Nithya Ramanathan: Yeah, to tell you about our work, I want to tell you actually the story of vaccination. Vaccination is actually one of those rare, just pure global health successes. And it was

done because of global cooperation, if you can believe it. So actually 50 years ago this year, the world came together and decided that they were going to aim to vaccinate every baby, every child on earth, because it needed to be a childhood right. And so that has been incredibly successful. It's actually cut childhood deaths in half since 1990. But we can do even better. And so to explain what we do and how we kind of help with that, next phase and reaching those remaining kids, I won't actually explain a little of how vaccination works, which is really a miracle. So every year, about 130 million babies a year need to get newborns, need to get vaccinated. And this isn't even just like a one-time thing. So these babies need to be visited four times a year. They need to get anywhere from 10 to 12 vaccines. And it protects them from basic diseases like measles and polio. And it happens everywhere.

But the thing is that most countries operate differently than the US. So most countries are very centralized. So imagine that all the vaccines for every baby in the US landed in Denver. And then they had to be sent out to every child four times a year from Denver with cars and bicycles and motorcycles. But now imagine there's not reliable communication, connectivity, the roads are often falling apart. So you start to get a sense of what happens around the world every year. And it's a miracle. And so essentially though these vaccines also need to be kept cold. And so this is where the refrigerators come in. So if you can believe it, reaching every child with a vaccine actually means that you have to get a fridge close enough to every child to deliver that vaccine. And so the first sort of business is getting those fridges out there. We've done that actually. Mission accomplished. And so now in order to really kind of close the gap with the remaining deaths, a big area that needs to happen is we need to actually make sure those fridges are always functioning. And this is challenging when you've got unreliable power and fridges fail silently. And so actually a remarkable number of fridges right now silently break. And so this is actually where my nonprofit comes in. We built a real time sensor that goes into every fridge and just sends out an alert over a text message when a fridge breaks. And we found that this replacing kind of the current approach which is mostly manual and paper based has made a massive difference. And so these sensors are now located in about 30,000 facilities in a few dozen countries around the world in Africa and Asia and help protect the vaccine supply for one in 10 babies born every year. And so that scale has been really transformative. And so now we're looking at what do we need to do to reach every child with a safe vaccine. And we're not just talking about fridges now. We're also going beyond vaccination to look at every piece of medical equipment because there's equipment to treat newborns, there's ventilators, there's so many pieces of equipment that ultimately are needed to save lives around the world. So we're looking at how do we actually continue to adapt this technology working with countries to ensure that countries get the data, the funding, the resources that they need to transform their health systems and make sure that every hospital and every clinic stands ready to save lives. It's so fascinating and such a great window into what technology can do. We're going to talk a little bit more about that in the next segment.

Lance Gould: But let's go back to vaccines for a second. Clearly they've become politicized needlessly but have. And you mentioned how they save lives of children but talk a little bit about how vaccines also save a community. And talk a little bit about vaccines generally in the political nature and how that's interpreted in other countries outside of here with a lot of vast deniers here. Yeah, I love that question. So, you know, there's a couple of things with that. One, vaccines do save

a community in so many ways. And it's one of those rare things that everybody can most, for most of the time, everybody can agree that vaccines are good.

Nithya Ramanathan: You're absolutely right that there is vaccine deniers. I won't actually tackle that challenge here in the US because the challenge here is actually very specific to the US political scene here. But what is interesting is that there is vaccine hesitancy around the world. And the reality is that that is due to a few factors, including the history of where we've come from, and ways in which actually communities have received vaccines that were expired. They were, you know, not appropriate for the community, things like that. And so one of the things that I'm really proud of when I look at the progress that the vaccine sector has made is really writing those wrongs by really involving local communities, by making vaccination actually a community led effort. And I think that's made a lot of progress in addition to the fact that now we no longer sponsor outdated vaccines to go to poor countries, which did used to happen. That is a reality. And so as we kind of both work to write those past wrongs, we are also able to use this as actually a way to move forward in a lot of ways and kind of bring communities together. And so for example, one of the ways that's done is that now most of the vaccination in many countries is led by community members. And so community members are the ones actually sending the vaccine messaging out there, bringing their communities together for outreach vaccine sessions. So it's a great question. I don't know if you were aware of all of that, but vaccines have really become this community mobilizer in a very positive way. Building trust in the community and building trust with, you know, again, going back to what Kirsten was talking about weaving. There's so much weaving going on in all of all the work here from what Josh is doing, but everybody else is doing. Thank you.

Lance Gould: Nithya, I'm going to move on to Shannen now. Shannen is the founder of the Kalea group. You're leading work on another fascinating initiative, which is through a branch of the group that you founded called the Kalea Labs, in which you are repurposing cocoa waste and turning that into fabric. This is such an innovative idea. Please tell us about this process and more about the Kalea Labs in particular.

Shannen Henry: Absolutely. Thank you so much, Lance, for Brooklyn Sory, Labs and Samuel Lawrence Foundation for having me. I'm honored to be a part of the conversation. I would love to prop us with a little bit of background, I guess, about myself and Kalea Group. Kalea Group, we call it an ecosystem that is focused on the decarbonization and the decentralization of the global textile value chain, focusing on textiles because textiles make up the bulk of the environmental impacts that the fashion industry has on our planet. My background is in environmental science, so I worked a lot on the degradation of forests, studying the Redwood Forest, the Amazon rainforest, and then now taking a look at rainforest of the Caribbean, which I'll get into when I talk a little bit more about Kalea Labs. So the Kalea Group is an entity that's made up of three things. One is that we connect brands and agencies with ethical textile suppliers, mostly located in the North of Italy because that's where the cultural heritage lies. The other aspect is a nonprofit organization calls the Council on Sustainable Fashion and Design of Grenada, which is based in Grenada, which is a small island developing state, a very vulnerable region, vulnerable to sea level rise, changing weather patterns, and really ground zero for a few years. So we're experiencing the effects of climate change, and then we have Kalea Labs. Kalea Labs sources its raw materials from these vulnerable island states, small island developing states like Grenada, and is working to transform the raw material, agricultural residues in particular. We never use virgin resources, transforming that into next

generation materials that we can use in the textile industry in hopes of decarbonization, reducing microplastic solution, and more. Focusing particularly on our cocoa waste project, many people aren't aware of this, but the rainforest of the Caribbean are filled with all of these forgotten Chocicle plants, right, and biodiversity and biomass, and in the chocolate production process, actually only about 30% of the plant is used. The remaining 70% is either incinerated or dumped, so that's contributing to carbon and methane emissions. Also, cocoa farmers are running on about, I think it's a \$3 a day wage, especially in Caribbean islands. And so this project of transforming the waste of the cocoa plant into fiber that could be used for textiles and maybe even interiors of automotive vehicles and things is an environmental impact. And so this is a project that could also have a social impact project for social impact so that we are helping to enhance what we call the social metabolism of people on small islands in developing states.

Lance Gould: Thank you, Shannen. There's so much of what I'm hearing from all of the guests so far about weaving and collaboration. It sounds like there's so much that could be done with what Josh is doing with composting and 70% of the cocoa being wasteful. It sounds like there's opportunities for collaborating with Kirsten and we're going to talk about that in the next round. What are the biggest challenges that you've found so far in this work? And can you give us a help us envision what the cocoa fabric, what the cocoa waste is when it's turned into fabric so that we can kind of, I'm hearing it and it sounds incredible. I just want to picture what it looks like when it's utilized.

Shannen Henry: Yeah, I think there are lots of emerging textiles that have come to market. Maybe you've heard of things coming from seaweed and citrus plants. And so we're looking to create something that's similar to a cotton fabric or that's versatile, right? I'm looking using the concept of biomimicry also to see how the plant, what properties the plant has, whether that's naturally water-wicking or resistant to certain natural, I have to say natural disasters, which we have realized that the plant is quite resistant in the context of the Caribbean to certain natural disasters. And then that will carry on into the final product. But on our end, looking to create something that is similar and it's versatile as cotton, but requires far less water in its production, is making a social and environmental impact because we aren't just letting things be incinerated in landfills and contribute to emissions.

Lance Gould: Well, thank you again Shannen in the weaving metaphors continued like you're doing work in Italy, you're from the United States, you're working with small island developing states. So thank you so much for all this and important and incredible work that you're doing and bringing all these other economies and countries together. And we're going to move on to Sarabeth now, Sarabeth in both your current job as senior director for climate services at carbon better. As you did in your previous one as head of carbon strategy at NASDAQ you will develop climate strategies for thousands of companies assisting them to envision a net zero future. Tell us more about the work you're doing with an eye specifically on scaling solutions.

Sarabeth Brockley: Yeah, sure. I think it's great to be here and I love getting this question because I always equate it to this conversation piece of where do you get to the level of kitchen table conversation where you can not only ask your mom and your dad or CFO they know what net zero is if they know what environmental stewardship is or if they know the difference between climate readiness planning physical transitional risk or what sustainable development goals are. And I think that this huge shift between what 2015 to now we have a lot of voluntary and compulsory

opportunities to participate in these types of conversations has really driven us to where we are today in 2024.

Lance Gould: So, I hear some other noise in the background. Whoever that is can you go on you, while Sarabeth is talking.

Sarabeth Brockley: Thank you so much. Yeah, nowhere is and you know it might it also might be me. I think one of the biggest things that I'm also traveling on my way to Italy to visit a client and then about to get onto an airplane so I'm going to the Delta lounge at this point in time. So it could entirely be me. But I think that we were kind of discussing like what is this goal to leverage the power of markets to drive sustainable growth and seeing what types of key roles we can incorporate by leading efforts and carbon strategy. And sustainable development. So when I was at Nasdaq to your point I was looking at different types of comprehensive core business strategies that leveraged itself to material interests in climate strategies for hundreds of thousands of companies that list will it's only 4,000 companies that list on the exchange in North America. But we were looking at embedding sustainability into the core business practices. So how do you get from sustainability risk just to enterprise risk management and underneath like different aspects of leadership we crafted these solutions in mind with the global regulatory process not just what the United States is doing but also what European Union and other regulatory pieces with ebb and flow back between different pieces of supply chain management. So with that you have things like the task force on climate related financial disclosures TCFD as we know lovingly and how it's evolving up into a larger kind of umbrella standard that raises that minimum standard of care that we really just didn't have when the Paris group is past in 2015. There's a lot of misnomers around science-based target language and pieces that are moving them to how corporations can and should react to what can is considered to be more and more compulsory even though it's still embedded in the voluntary framework that peer to peer kind of recognition that if you're not doing the same thing that your market cap here is doing are you even sustainable. So that type of pressure has always been interesting to see but I to switch into my current role one of the reasons why I left now stack was this whole point of being able to look at not just the larger issues behind carbon removals and carbon offsets for companies as they're setting these net zero road map pieces. But how do you get more towards procurement piece? How do you get towards supply? How are you on the right side? What is not necessarily a true commodification market space yet to get people to start buying something that will help their business lines towards 2030 and towards 2050 goals. So in my current role as a Senior Director at Carbon Better we are addressing that problem. So picture a tale to tip piece that looks at not just helping companies understand that kitchen table conversation of what is my scope one scope two and scope three and do I need a carbon as a service or software as a service solution to really manage that or can I become a good carbon officer internally and start managing that process through Excel if I know the tools of the trade. What is more difficult is getting people to participate in the voluntary and the compliance carbon markets so helping companies navigate what is increasingly complex space of the kind of creation of a highly diversified high quality carbon portfolio is kind of what we're looking at 2024 how do we make those types of scalable solutions that either blend. And compliance spaces that have existed for the past 15 years with newer pieces that add and flow with nature-based solutions and then when you look towards technical carbon removal, the one thing that will get us to that 5 to 10 gigaton removal year on year that we need to be are gold by 2030 and to meet the Paris aligned targets by 2050 is full scale

carbon removal. So the aim of those solutions tend to focus on integrity and measurable ability. You'll have remembered many articles that were listed in the Guardian or the New Yorker or even on John Oliver's TV show trying to qualify to the general public. The pros and cons of dealing with what is a nascent market space for commodity structure that doesn't really exist in the same way that gold silver copper or other tradable pieces do. What we're looking at is making sure that that focus on data driven solutions doesn't undercut the need to scale from a standpoint of company ambition of looking to just get started on measuring another key risk in their kind of enterprise risk management and then looking to develop more confidence in the outcomes of what we would now see as these current climate investments with a heavy focus on carbon. In just a minute or so, I know this might be a larger topic to tackle, but why has ESG become such a dirty word in business? I blame Larry Fink. I mean, this is all, this is Black Rock's problem. If he looked at his, it all comes down to one older white man forgive me. I think that the whole point is we have this whole focus on more of a cultural delineation of why certain language resonates more than others, but ESG has existed since social responsible divesting did in the 1960s and apartheid Africa. There are pieces that have been built on how we show up as corporate citizens through our pocketbooks or through how we spend money in our supply chains.

Sarabeth Brockley: That didn't just start with ESG a few years ago, right? The ebb and flow from the 1960s all the way up into the early 2000s when Enron made it most companies realize that there should be some type of due diligence and corporate governance over how certain things like bribery and anti-corruption are passed through and codified across different types of companies and industries. We've moved up from that into good corporate social responsibility and now ESG is just a way of demonstrating that yes, can you point to one of the 160 or so strategic metrics that get measured on Bloomberg terminal when an investor is going through and saying like should I invest in this company, how do they treat their workers? Do they have a DEI program? Are they actually interested in climate change, readiness, policy, or do they just have a policy? What does that risk threshold look like? It is very inclusive of looking at some of those risk trajectories that just haven't been quantified before. So I think to put your question down into like two pieces, we're seeing that minimum standard of care raised and whether it's through ESG, whether that Larry Fink thinks it should now be called energy pragmatism, we're seeing that needle move. And then I think a lot more companies and then certainly people here on this podcast could probably agree that we are idea agnostic but solution picky. And that was one big resonant thing I took me to the last act and moving into my new I think you I coined it. I feel the same at different places because you you have to be open to all right the voluntary carbon markets and especially ESG has taught me that like how do you move around these very difficult decisions when you only have so much money available right. But that doesn't mean that you can't be open to the idea and you can't move into it with the critical eye of what's best for the company what's best for planet and what's best for people. So with that frame I'll throw it back to you Lance.

Lance Gould: Thank you so much perfect timing and I'm going to hold on to you right now because we're going to have you join us for round two here in the second round. Thank you all for forgiving us such a better sense of what everyone does really again I'm so thrilled that this group is here today. Now for this next round of questions we're going to pair two of you together to have a bit more of an in-depth conversation on the topic related to your expertise and so and I'd love for you to discuss with each other when when relevant but let's start with Vanessa and Sarabeth.

Vanessa you wrote an op-ed for Time magazine in which you noted that quote there exists an environmental solution that can reduce inequality build resistance to the climate. It's a very very very important part of the resilience to the climate crisis and reduce emissions all at the same time. It's called educating girls and young women and it needs to happen now and Sarabeth you're a strategic advisor to the nonprofit women and climate so both of you tell us let's start with Vanessa tell us how educating girls is a solution that can have a major global impact. I'm going to give you about eight minutes for this discussion and then we'll move on for the next one.

Vanessa Nakate: Yes, thank you very much. When I learned about educating girls being a key solution in addressing the climate crisis, I was surprised as well it was from Project Drawdown which lists 100 things that we need to do to reduce greenhouse gas emissions and often ranked among the top 10 solutions is education. So there you find girls education, you find women empowerment. And Project Drawdown explains how educating girls and women empowerment kind of only reduce existing qualities that girls and women face in the community. But also it has the power to reduce greenhouse gas emissions. When I learned about that, I started to make the connection with climate change. I know that climate change disproportionately affects women in many parts of the world. And according to the UN 80% of the people displaced by climate change women. But I also know that women are not just victims of the climate crisis. We are also on the front lines to be fighting for a better world. And one of the ways to ensure that more women are in leadership spaces where conversations about our planet are being met is through educating girls and empowering more women. It will help keep more girls in school and also it can equip girls with the skills that are needed to address the climate crisis and also to be able to participate in the greener world that we are trying to build. We know that climate change is causing a lot of challenges with child marriages, with school dropouts and many times it's girls on the front lines. That's why it's really important that we prioritize girls' education, we prioritize women empowerment. When I joined the climate movement, I was inspired by a young woman in 2019 and that was a 15-year-old climate activist from Sweden, Greta Thunberg.

There were so many other young girls and young women that joined the movement and at some point, it's like the movement was being led by young women from different parts of the world saying enough is enough. And I have the opportunity to go to school. I appreciate my parents for that. And I think that being able to go to school gave me the skills that I needed to ask questions about climate issues to teach myself about what climate change was. Because in school I did business administration, but because of the skills that I learned in school and the knowledge that I acquired in those years, it helped me understand even when I was reading when it came to climate issues.

Lance Gould: Sarabeth?

Sarabeth Brockley: Gosh, I don't want to follow up against that, but I'll give it a try.

I think one of my greatest pleasures of being able to do things that are not work and receiving capital back related is certainly a volunteering where you get to show up in different spaces and something that's become very dear to me over the past few years as my work with women in climate, which is global organization dedicated supporting and elevating the role of women in climate action. And people who identify as women. So if you go on the website, you can see that

there are a number of different kind of city scale activations as well as global and international narratives that helps connect female leaders, innovators and advocates to meaningful change across various sectors. And besides organizing events and workshops and panels, like we're playing pretty hard at New York climate week through two activations that we have. But it's really focusing on like how do we make more solutions for climate change that bring together diverse voices that a dresses climate crisis to more inclusive lens. And that's kind of done in two ways. I would say one of the more disruptive pieces that I've seen done in the past but not done well. But I think women in climate does a really bang up job, is that they have a speaker database.

If you look at a couple of international opportunities, they're considered like a gold standard of how you need to diversify panels or get people access to panels even knowing that they can participate on a speaker stage. We do a lot of that legwork and leverage points and create profiles for women and individuals who identify as women to give that level of access and table space availability. Having those types of opportunities for networking, learning and celebrating contributions of women to global climate action is a drop in the bucket, but it's a big drop in the bucket. I think what the founder did, Michelle Lee, when she established Women in Climate was meant just to amplify that voice of leadership, of making sure that we weren't just giving people roles and speaking spaces, but connecting people across a platform to enhance and drive this type of diversity and sustainable innovation. One piece that I think we might have all heard before, but I want to reiterate and think as meaningful here, there's always that three power play. Do you have a seat at the table?...Okay, great.... Do you have a voice at the table? Cool...So if that seat's not enough, what matters next is being heard and respected. And then do you have a voice that's remembered? Where does that influence and where does that access last? And you can see that through different types of people over I think the course of the climate movement where I think Christiana Figueres is the individual that brought the Paris agreement to Victoria Hansen into businesses and into countries worldwide. She gave seats to the table to the global NGO community to participate in what was considered a closed-door process before 2009. And we think about voices at the table when a person that comes to mind for me is Mary Robinson. So the former president of Ireland was a prime example of someone who used her seat but made sure that climate justice had a place in a conversation when it wasn't necessarily one of the biggest things that people wanted to talk about in terms of transitioning economies. And then the last personnel plug is we all know Sylvia Earl is in her deepness as we might refer to her. But a lot of her work at Mission Blue is very present into ocean conservation efforts around the world and making a lasting legacy in that space. I think it is something that's been uniquely driven by women over the past decade and creating those systems and structures to remember and integrate perspectives across these universes is deeply important to me and will continue driving work in the women and climate space. But I think continuing to advocate for individuals here on this call to come and join us is now my next week because there's some pretty awesome people here Vanessa and looking at you. But I'll throw it back.

Lance Gould: Amazing, Sarabeth. Well, just to just to throw some of those names into context. You mentioned Kristiana Figeris and Mary Robinson, both are members of the B team. The B team is a partner with Kirsten's group Climate-KIC on the system systematic climate action collaborative. And you also mentioned Sylvia Earl who is an alliance member of Blue Planet Alliance as is Women in Climate and Michelle Lee and Blue Planet Alliance is also a partner of Samuel Lawrence Foundation and a contributor to this podcast. So thank you for bringing up those names and just I

didn't know that but how helpful was it that I put that into my speaking. Amazing, you know, but to your point, yeah, there's just so many connective circles in this group and I hope that all six of you get to collaborate together after this, after this podcast. But now we're going to move on to the next round or to the next segment of this round. And let's bring in Nithya and Josh for this one. Josh, you were named by former president Obama as a champion of change for your work as founder of TransLoc. I hope I'm pronouncing that right TransLoc. A tech company that pioneered the delivery of real-time transit information to writers and administrators. Nithya, your nonprofit Nexleaf as you told us a little bit about before, is taking things a step further using IoT data, upskilling health workers on data use and holistic process redesign to help ministries of health around the world get ready for AI. So both of you tell us how technology can be a solution for the future in both the agriculture and health spaces and let's start with Josh.

Josh Whitton: Yeah, good question Lance. So personally, I feel like I'm a bit of a paradox where I have a background in computer science and also I know what it's like to chuck all of that and just live in the woods and chop wood and grow vegetables. So why technology? The reason that technology is indispensable at this point is because there's a lot of people, a lot of systems, a lot of complexity to manage. And we can't just do that by shuffling paper and sending emails. It's not going to work. Clearly it's not working. So the thing to do is to be looking for ways that technology can actually help to protect nature, to make civilization go easier on the planet. We have to be finding those solutions, but also we have to be understanding how nature and the planet work so that we're not just pursuing some kind of techno lust, you know, because we can. And then actually by definition of technology, which is pretty close to the dictionary definition, is just the application of knowledge for practical purposes. The definition of technology is not that it has Wi-Fi or shoots a laser out of it or something like that. So in the, for example, in the case of TransLoc, which was an abbreviation of transportation and location, that can be early 2000s, I was just asking the simple question of why is public transport in America so bad, so underutilized. And at the time we had this fancy technology recently demilitarized called GPS. And up to that point, people only thought of GPS as guiding missiles more precisely into terrorist bunkers. This is all the public knew about GPS. And so literally when I went around with this idea to bring public transit online and put it on the internet with GPS, I literally had to assure administrators their bus wasn't going to immediately blow up because a missile was going to fly into it. So we're always having this trend of new new possibilities are all around us. Now there's like GPS and everything, right? And back in the day, there was GPS nothing. So we see these kinds of trends. We see these adoptions of new technology. And we just need to make sure if you think about it in that case with TransLoc, putting a way back in the day, the only way a transit agency really knew how to make public transit better was to buy another bus. And the problem is that when that bus was empty, that's an ecological disaster. That is not good for the planet. You can't just have empty buses going up and down the street. They have to be full of cars if they're going to, sorry, have to be full of people who are not driving cars if they're going to do any good. And so a simple and expensive device like a GPS was not yet on this, you know, million dollar piece of infrastructure rolling up and down the street and once it was, the public could actually interface with it in a better way. Similarly with making oil, there's compost bins and recycling opportunities for organic matter, hidden all over the world in looks and crannies and backyards and side yards. And the public just doesn't know about it. So we're doing something I

guess similar with MakeSoil this these days by using technology to put essentially compost bins on the internet. We now have compost bins that one person was using that now have four or five households all using that same shared infrastructure. So those are a couple examples and yes, AI is coming and we need to ensure that it is helping us wrangle this complexity, which it will be able to do like no other technology before it. It's one of those trade off technologies, but it really does hold that promise.

Lance Gould: Thank you, Josh. And thank you for utilizing the word techno lust and I'm going to mention and offer that out as a name for some DJ in Ibiza. You're welcome whoever you are. Take that name and Nithya, please let's weigh in on this.

Dr. Nithya Ramanathan: Yeah, I'd actually like to build on some of the themes that Josh mentioned. I'm kind of similar. I actually have a background in computer science as well. And when I was first starting my PhD, this is back in the early 2000s. A lot of the applications of technology and sensor technology, which is where I was working, was also military. And so I still remember my first class where sensors were being used to launch smart bombs more intelligently. And I almost dropped out of my PhD, but decided to really stick around. But so I really come at it from a very different lens, I think, from a lot of my peers, which is looking at beyond trying to make computers faster and beyond trying to make computers faster and beyond trying to be able to do more. You know, scale some magic solution, whether it's, you know, Facebook or, you know, what have you. I really looked at like, what are the problems that are out there? Like, what are the real problems, the deep problems? And then where can technology play a role? And, you know, if you go back to what I was sharing about vaccines, really the power of the power that enabled vaccines to scale was actually ultimately cooperation and trust. And that's really, in some ways some of the things that have been falling down lately, you know, if we look at our recent experience with COVID, and some of the vaccine hesitancy, I said you were bringing up, it really was a failure in cooperation and trust. It wasn't that the tech failed us. In fact, you know, tech did pretty great. If you look at the new platforms and new vaccines, that part was there. But really, you know, when I look at cooperation and trust, that's what's really going to be vital in this next phase. And when I'm talking about cooperation.

I mean (cooperation) between countries, between manufacturers of medical equipment, like vaccine fridges, and between global agencies like WHO and Africa CDC. And I think this trust really has to be built on a basis of sharing transparency, truth, you know, some like really basic kind of humanistic values. And we're starting to see the seeds of that. So when I look at even coming out of the pandemic, I see better cooperation between manufacturers and donor agencies. And so we're starting to see more local manufacturing of medical equipment, closer to the actual customers in Africa and Asia. That's amazing. And that requires technology, transfer, cooperation, new financing flows, all sorts of things. I'm also seeing better cooperation between countries. So increasingly, you know, countries across Africa, countries between Africa and Asia, countries between Europe and Africa are starting to learn from each other. Starting to engage more around how do we share data? How do we actually approach some of these problems differently than we have in the past?

I'm also seeing, you know, donors play a different role as well and thinking about what is their role? And, you know, how do we kind of recover from some of those mistakes of the past, you know, that go back hundreds of years? And really think differently about how we work together in partnership

and collaboration rather than in, you know, sort of old school punitive or top-down ways. And so that's, I mean, when, like, that's sort of the basis. And then when I think about the role of technology and all of that, you know, technology alone is not the answer. Really, technology is often seen as a single bullet. But we really know that it's not. And so I'm really thinking a lot at Next Leaf about how we build our data platforms to actually engender trust, to engender credibility, to engender openness and collaboration. So that solutions of the future are able to really operate and take into account the realities and also learn from the mistakes of the past. And so, you know, when we think about the data platforms, we think about helping countries build skills to use those data, use that data to own that data, to control that data, so that we start to level the playing field and really ensure that even the poorest countries have a real seat at the table. When the next pandemic hits, when medical equipment is being distributed, and all of that. So that's really been our view and our focus is, yes, we build the technology, and we also think a lot about what is the rest of the environment around that technology that's needed so that we get to the kinds of impacts that we're trying to get to.

Lance Gould: Thank you, Nithya, and let me just note what a great job NexLeaf is doing in convening so many of those partnerships and so much of that collaboration and utilizing that technology to make sure that this data is available and at an instant and in such innovative and creative way, so thank you for that. Now for the third segment of our second round, let's bring in Kirsten and Shannen. The fashion industry is notoriously one of the worst sectors for the environment, estimated to be responsible for 10% of global greenhouse gas emissions. It might even be more than that. Shannen tell us about that from your perspective as a designer working with innovative fabrics and Kirsten, how can circular cities and reverse logistics play a role in reducing the negative impact in fashion and other industries have in the environment? So let's start with Shannen.

Shannen Henry: Yeah, absolutely. I know that, but 8 to 10% number that we normally use when we talk about fashion's impact on the environment. About 70% of that is due to the textile industry. And so I'll focus on textiles and the impact of textiles on fashion. And fashion and textiles start at one of two sources, which is either a farm, if you're talking about a natural fiber textile, whether it's cotton, it's wool, it's linen, or it starts with oil. Because polyester is unfortunately petroleum. And we're also extracting more petroleum than we can keep up with with a non-renewable resource. So the impact of fashion on the environment has lots to do with textiles. I do want to just bring out some key points around polyester in particular, since I'm an advocate for natural fiber textiles and next generation materials. It's that we don't realize that when we wash a load of laundry, for example, there's about 700,000 microplastics being released into oceans just with one wash. And so we use that 8 to 10% number that's GHI emissions, but there are the other factors like microplastics accumulation in our oceans. And so with one wash, so many microplastic particles are being released right now, about 25% of all microplastics in our oceans are coming from polyester clothing, whether it's our washing as individuals and consumers, but also in the production process of developing polyester textiles. Because as we know, textiles go through washing processes, dying processes, and so all of these toxins are ending up in the ocean. So I would love if we would start also, including those other factors like microplastics, the toxic chemical dyes going into our oceans, as well as the carbon emissions and methane emissions that are coming from clothing

being piled up in landfills. When it comes to textiles, I think that there are solutions for the future, like the textile that I'm working on, but also we could learn a lot from the past.

Linen, for example, is derived from flax and it only makes up 1% of the global textile market, when it's actually one of the easiest to cultivate, requires 60% less water than cotton does, but it represents 1% of the entire textile market. While polyester represents 60% and it's coming from a non-renewable resource. So I think there are these sort of shifts in industry and in mental mindset shifts of whether it's fashion brands and conglomerates that we can make these changes that don't necessarily require massive investment or new technology. Though I do think that, again, solutions for the future could be rooted in the past, like creating, having more linen crops around the world, but then combining that with technology. So maybe using blockchain and supply chain so that we can remanufacture parent, just all of these factors that come into play. And in general, I think that if we shifted our mindset to look at fashion and textiles as more of a wellness issue, like what we put on our bodies is just as important as what we put in our bodies, realizing that most of these things are made up of non-natural petroleum, that there would be a broader change, and that we could together collaboratively have a less impactful fashion industry, whether you're a fashionista or not, we're all required to work clothes. So we all have an impact, and yeah, I would say that that's my take. We could learn a lot from the past and combine that with tech for the future.

Lance Gould: I just learned a lot from you just now. You just shared so much with me about I didn't realize, I mean, I know microplastics or a problem, I didn't realize was it 700,000 come out in every wash you said. Almost every wash. Yeah, goodness. That is such an incredible stat and such a depressing stat. But let me let me throw it to Kirsten, you know, with an eye on solutions and what you guys are doing in cities with recyclables with with repurposing things. Let's take it from that perspective.

Dr. Kirsten Dunlop: Thank you. Well, just to put it into add a couple of numbers to put it into perspective. So what what Shannen is describing is is really closely related to the fact that 85% of the footprint emissions footprint of any product is determined in its design phase. So what happens upstream massively depends on what happens downstream. But if you take textiles globally, we produce like 87% of the materials and fibers that are used to create textiles end up in landfill and incineration. It's just it's it's obscene. We are creating this enormous volume of material that is just goes straight to waste. In the European Union, 50% of textile waste disappears into landfill. Only 1% is collected. So the reason why cities matter and that's actually unfortunate that 1% is also global. 1% of of textile production globally and we produce something between I think it's something like 80 to 100 billion tons. It's absolutely massive of clothes. No 92 million tons of textile waste. Only 1% is collected. So cities matter because cities are the place where people consume the place where people waste at scale. In the sense that the choices to throw the choices to buy the choices to to aspire to need are kind of really concentrated in those contexts of billboards of advertising of shops of kind of high street retail online and shipping. But also then just literally the kind of the ways in which we wastefully put out and put through so a lot of the work that we are doing because so much of what we're trying to focus on is how do you help individuals and we've all been talking about that in different ways. How do you help this kind of mirroring relationship between individual choices, a sense of neighborhood community of collective action and some tangible feeling of the whole being greater than the some of the parts in taking that action.

And in the context in urban context, it is possible to do that in places like the mirror, literally that create mirrors for people to both see the outcomes or have those outcomes brought to them, brought to their minds eye, but also mirror what is the alternative, what kind of look like. So a lot of the Climate-KICers and organization that support solutions development venture building ecosystems, we've talked about ecosystems a lot here, ecosystems of multiple solutions then working together. So if I just name a few organizations that we're involved in, things like Vienna textile, which is a startup that works on using bacteria to put color dye into cloth. So kind of really early on, like coming right upstream, that's embedded in the heart of the city of Vienna. So it's kind of embedded in a relationship also with art and cultural institutions, installations. So people can start to think about the beauty, the making, the playfulness we were referring earlier to, to buy a memory creator, kind of thinking about how do you start to create learning from organic solutions and bringing them into a notion of aesthetics, playfulness, reconfiguration of what it means to create beauty and embed beauty in and sustainability together. There's some big, big programs on that happening in the US, on what's called the European Bauhaus in Europe, sorry. But on the other end of the spectrum is to work with an organization called Reverse Resources, which is, as it describes itself as the Uber of textile waste, it's kind of literally digitalized tracking and helping organizations understand and track end to end, what is happening here, where is this material going? And in the middle of that is a company that I'm very proud to be on the board of called Responsible.us, which is basically re-comassing of streetwear and of urban apparel. And it's very focused on this idea that cities are the places where behavioral choices are changed. And where you can start, whether that's digital cities, aren't are the online urban environments in which we live, or the physical urban environments and the way in which they intersect and play with each other. But the idea of really creating a global market, a commerce market in urban context of reverse logistics, of recycling, of re-manufacturing, of reconfiguration and kind of re-valuing the things. And one of the things we've been playing with is how do you start to get the notion of digital memory, of personalized memory. So I bought a dress for my wedding. It carries the shape of my body in it. It carries the moment and the memory of that. It carries a color and emotion. Can I NFT that into the garment so that as somebody, as I put it into their responsible market and someone else picks it up, it carries that story with it. And so we start to create communities of the things that we care about, like the Romans had an idea of household gods. There were the gods of the family and the gods of the home. And they had this notion about them having conversations with each other each night. So we're in other words, what we're doing is going from the physical infrastructure and logistics for re-manufacturing and recycling but above all, upcycling and into different uses and organizations like StartUpcyke, IONCEL that are working on taking waste fiber and turning it into cloth. But then also the reconceptualization of the imagination and the sense of cultural imagination, cultural aspiration to make it funky, cool, extraordinary or part of a different tribe that you carry memories through communities through the clothes that we start to exchange with each other. A lot of the experimentation actually was massively helped by COVID because we're all sitting in homes in front of digital screens for two and a half years. And it started to feel a little bit like, do I really need to go down the street and buy another five outfits? Or do I start playing with what's been sitting in my cupboard for two years? So there's openings, there's possibilities. It's a very global North perspective, but this is where a lot of the waste is coming from.

Lance Gould: Wow, I must say just listening, I'm not just saying this, but all of us feeling the way we do about the problems of the world and hearing today, just all the solutions that are out there, all six of you are doing such incredible work moving towards solutions. It makes everyone feel better. And so I'm hoping that some of that rubs off on people watching this today. Thank you for sharing the specific granular examples of what's happening. Let me just ask Bart real quick. Do we have any questions from the audience?

Bart Zeigler: You know, we, I, I, I asked a question, Lance. Of course, we're hearing about these amazing people. Josh and technology and Josh, by the way, we were in discussion with Gladys West, who's the 93 year old black woman, the mathematician of that GPS, no one knew how it. But, yeah, this is so wonderful about, you know, these new technologies and Vanessa. Really the question, another question I have is for you. How do we get the message out to young. Because I'm not...How do we teach, how do we get the word out? Because only, because 60 or 70% of the emerging nations of the third world do not have internet. What do we do? How do we get the message out? How do we teach without the internet?

Lance Gould: Vanessa, do you want to start with that one? I think that was in primarily you, but after that, anyone else feel free to jump in?

Vanessa Nakate: Yes, thank you very much. I think getting the message to young people is not a problem right now. Because there are so many young people that are actually on the front lines either through climate strikes or through projects in their communities or through climate education or walking on sustainable fashion. There are so many young people on the front lines. I think it shouldn't be how to make young people involved. It should be how to support those that are already doing the work, those that are already reaching out to communities. Because there is a conversation that some of us have been having lately about how to ensure that we sustain the people within the movement. Because we've seen people who started maybe five years, six years ago, and not able to continue with the movement because as they get older they have responsibilities. They need to have to keep stable jobs. If you are constantly moving from place to place, speaking at climate conferences, it is very hard to keep stable jobs.

If you start having a family, we've been having those conversations of what happens six years from when we started, ten years from when we started, how do we ensure that people don't leave the movement? We started thinking about ways of getting people into internships or people into jobs with organizations that are already advancing climate work, or getting people to maybe advance their studies in the climate space, so that they can still continue to do their work, even if they're not doing it on the street, but they're doing it maybe through the jobs that they are having.

It's really about investing and supporting those that are already in the space, because as much as I've tracked me in the movement, some that are leaving, because they cannot be able to do the work with the increasing risk of being able to stay up.

Lance Gould: I think we'll go ahead Vanessa, finish your thought please, you lost your course second. Vanessa, can you hear us? Maybe having tech issues. Go ahead Vanessa, go ahead, sorry. Please finish your thought, sorry, you got caught off for a second. I think you were just wrapping up and saying that we have to support the women who are already doing this work, such as yourself and your colleagues.

Vanessa Nakate: Yes, because as much as we attract more young people in the movement, that people that are also leaving the movement. So how do we ensure that those that are already in the movement stay and those that join the movement stay as well?

Lance Gould: Excellent. I'm going to move on now because we're coming up on time and I wanted to make sure that we get to our last segment. We're coming toward the end of our program and I wanted to give each guest an opportunity to give a quick closing thought and we're just going to ask each one of the six guests to please share with us one thing that we haven't discussed yet that offers hope for the future. So I'm going to go in order of my screen here and I'm not sure if Sarabeth is available because I don't see her, but I'm going to start with Nithya.

Dr. Nithya Ramanathan: I just really appreciate being able to be here. Thank you so much. Lance to you and to everybody else and I've just been really inspired to hear about the solutions and the kind of ways in which people are thinking about complexity and weaving together multiple different players as each of us tries to tackle our own problems in our specific spaces.

Lance Gould: Excellent. Thank you so much, Nithya, for being here. Next on my screen is Vanessa. If your connection is there, we'll hit you and then if not, we'll move on and come back to you.

Vanessa Nakate: Can you hear me?

Lance Gould: Yes, we can.

Vanessa Nakate: Yes, well for me, I really appreciate having been on this panel. I think it really shows how people are addressing the issue from different perspectives and it really makes me respect the different angles that we can make this world a better place. And in addition to that, maybe for the people that are watching, you know, to know that you don't have to go to the street if you're not able to do that, you can still want to make this world a better place. Because, listen what you're doing, we've seen lawyers in court supporting activists, we are seeing people doing work in sustainable fashion, we are seeing businesses trying to make their operations more sustainable. So it's really finding activists to what you are already doing, if you think that you're not able to go to the street.

Lance Gould: Amazing, thank you Vanessa, Shannen?

Shannen Henry: Oh, also thank you so much. It was really great to be here and amongst everyone. I always like to highlight how interconnected everything is. I think sometimes we work in silos and I'm like sustainable fashion, but it's really interconnected with agriculture, also with technology, with cities and overall just lifestyle. So I just want to highlight that everything is interconnected and we all have just different assets that we can offer to help move each other's initiatives forward. And I look forward to speaking more, collaborating and being connected.

Lance Gould: So well said, Shannen. Thank you. And Kirsten.

Dr. Kirsten Dunlop: I'm going to build on something that Shannen mentioned earlier, Biomimicry and particularly abundance thinking. I think one of the things that gives me enormous hope, and I was actually just thinking about what she was saying Vanessa, I completely agree with your response was that same thing. We don't need to get to young people and teach them. We need to listen and power and lock them, mobilize them. There is just such a hopeful shift. If we do stop thinking about doing green as some subset, specialized elite or impoverished subset of normal activity, if we start thinking every single job on this planet is a green job, every single financial system, economic system either constructs a regenerative future of the stanza. It is becoming that binary. But when we start to use things like biomimicry, we start to really understand ecosystem services and tune in to learn how every single natural system has ways of renewing resources, of preserving nutrients, of looking after actors in its systems, and we kind of copy that and begin to lose that as a frame of reference into our own systems, you start to get abundance thinking, you start to open up all these possibilities. And that's what I have a beef with ESG because it's a subcategory of creating this kind of virtuous behavior instead of mainstreaming into the entire construct. Actually, things like modular geothermal energy, a pipe up from the core in every house, that's energy democracy. That is a completely different world of possibilities, of access, affordability of the basics of well-being. So my kind of, my pet project, when we get stuck, and I'm thinking about this, when we get to the Summit of the Future in New York, if we started flowing oxytocin through the air conditioners, we might actually, if we're starting to really lean into each other and go abundance thinking, how do we start to do this in ways that's not about a sub-category, it's about mainstreaming a completely regenerative mind shift

Lance Gould: All right, well, let's talk with security at UN and make see if we can make that happen. And Josh?

Josh Whiton: One thing that gets me excited is the possibility for a real state change from where we are today, where you just heard, again, I'll reiterate that like sustainability jobs or generative jobs are still too fringy, right? Like if you go out into traffic and stop every car and roll down the window and say, where are you off to today? You'd probably get the car number 200 before you found somebody in a real job doing sustainability or regeneration. And it's almost like the perfect setup though, because we keep hearing that there are people who are lacking purpose and there's this existential crisis and they don't know what to do and there's a loss of meaning and then on the other hand, we hear that the planet is and we know the planet is in trouble in more ways than you

...there's... you look around and there's just work to do everywhere. Well, isn't that kind of the perfect pairing? Like humans are needing more purpose and they're wondering what to do with themselves. And we're worried, AI is going to take all our jobs away and then you look over here and it's nothing but jobs to be done in regenerating the planet in harmonizing humanity and our civilization with the biosphere. So I'm really excited about when that really obvious tension collapses into a new stabilized state where humanity realizes how exciting it is to work together to take care of the planet. It doesn't need to be a lack of purpose in anyone's life. There's tons of purpose to shovel shoulder to shoulder every day. I'm excited to be around for when that happens. Any of the speakers here obviously are modeling ways to get involved.

Again, you rarely go to university and are confronted with a menu of choices. This one is regenerative job here, sustainability job here, take care of rivers here. It's not really on the menu and

so we're all kind of having to find our way to these careers, sometimes second careers and stumble our way toward them. But I'm looking forward to them being the dominant occupation of the human species. Take care of our planet.

Lance Gould: What a great point and that's really five great points and I know we would have gotten six great point of Sarabeth was still here...I don't know if you can hear me, Sarabeth giving me one last shot. I know she was in the Delta terminal so she's gone. Okay. Well, we will get a chance to chat with Sarabeth afterward and thank you all for this wonderful conversation for sharing your perspectives here today. All of you are doing such inspiring work and I hope the audience will follow up and check out your work and I hope you have a chance to use this introduction to work together in the future all the panelists.

That concludes our program today to rewatch this podcast or to see a transcript go to the Samuel Lawrence Foundation website in the coming days. The website is [SamuelLawrenceFoundation.org](https://www.samuellawrencefoundation.org) Thank you so much to our six panelists from Carbon Better, MakeSoil, Climate-KIC, Kalea, NexLeaf and Tard Foundation.

Please learn more about their work on the Samuel Lawrence Foundation website. We'll have links to all of these six organizations and thank you to Blue Planet Alliance for their partnership in First Fridays. Please also visit Brooklyn Story Lab. That's my company, BrooklynStorylab.net to learn more about the purpose driven work that we are doing globally as Josh mentioned.

Lastly, come back next month on the first Friday of October for our next First Friday's podcast. Thank you to everyone and goodbye.