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Special Episode | Scenes from the IETA North America Climate Summit 2025

We present a special episode of SmarterMarkets™, bringing you exclusive interviews from the IETA North America Climate Summit 2025.

SmarterMarkets™ returned to the IETA North America Climate Summit to explore the challenges and opportunities defining the next phase of carbon market development.

This year's conference examined emerging carbon pricing systems worldwide and the "how" and "when" of driving long-term growth — from the growing role of nature- and technology-based removals to the outcomes of the voluntary market's focus on integrity and how businesses account for carbon.

In partnership with IETA, we spoke with a cross section of delegates about where they see progress, what challenges remain, and the developments they're watching most closely as markets evolve.

We've compiled a selection of those 10 interviews into this Special Episode of SmarterMarkets™. The full interviews for each guest are available on the [SmarterMarkets™ Presents media portal](#).

Our guests in order of appearance are:

Daniel Klier, CEO, South Pole
Margaret Kim, CEO, Gold Standard
Mandy Rambharos, CEO, Verra
Lisa DeMarco, CEO & Senior Partner, Resilient LLP
Juan Duran, CEO, EcoRegistry
Guy Turner, Managing Director of Carbon Markets, MSCI
Ed Morse, Senior Advisor, Hartree Partners
Sandeep Roy Choudhury, Co-Founder & Director, VNV
Stephen Mackenzie, Managing Director, EduVOD Africa + Irungu Waggema, Business Development Sector Leader – Agriculture, Nairobi Securities Exchange (NSE)
Steve Zwick, Host, Bionic Planet & Co-Author of The Carbon Paradox +
Renat Heuberger, CEO, Terra Impact Ventures & Co-Author of The Carbon Paradox

Mandy Rambharos (00s):

We in the space, it's a small world in the carbon market. We need to stop fighting with each other and we need to stop having this 'or' market and move towards an 'and' market. So it's not removals or reductions, it's removals and reductions. It's not nature or tech, it's nature and tech. So I really think we need to have these open frank conversations with each other as practitioners in the market to say, can we actually look at the fact that the climate is changing, we need all the tools in our toolbox, and it sounds very clichéd, but we do need all the solutions and we are really just doing the work of the anti-carbon markets guys, when we have infighting, right? So it's this, look at how we turn this from an 'or' market into an 'and' market is something I think if we agree, we'll really progress in the next year.

Announcer (45s):

Welcome to SmarterMarkets, a weekly podcast featuring the icons and entrepreneurs of technology, commodities, and finance ranting on the inadequacies of our systems and riffing on ideas for how to solve them. Together we examine the questions: are we facing a crisis of information or a crisis of trust, and will building Smarter Markets be the antidote?

This episode is brought to you in part by Abaxx Exchange, bringing better price discovery and risk management tools to navigate today's commodities markets through centrally cleared, physically deliverable futures contracts in energy, environmental, battery materials, and precious metals markets. Smarter Markets are here.

David Greely (01m 34s):

Welcome back to SmarterMarkets. Today we are bringing you a special podcast episode featuring exclusive interviews for IETA's North America Climate Summit 2025 held during Climate Week in New York City. SmarterMarkets returned to IETA's North America Climate Summit to catch up with market practitioners on the challenges and opportunities in the development of the carbon markets. This year's conference took place in the context of a post-Article 6 world where carbon pricing covers 28% of global emissions with growth coming fastest from emerging markets like China and India that see carbon pricing as an economic opportunity. Research has shown that if countries are serious about net zero goals, the international carbon market could hit \$300 billion by 2030 and 1 trillion by 2050. Europe, Canada, and California are leading the way, but they're no longer alone. Across the G20, governments are building carbon pricing systems to back their Paris commitments.

David Greely (02m 34s):

This year's North America Climate Summit took a tour around these emerging markets and a deep dive into the how and when driving long-term growth with particular attention paid to the increasing focus on nature and technology base carbon removals, the outcomes of the voluntary carbon markets, focus on integrity and how business can accurately account for its carbon emissions. In partnership with IETA, we spoke with a cross section of participants about where they see progress, what challenges remain, and the developments they are watching most closely as markets evolve. We have compiled a selection of those 10 interviews into this Special Episode of SmarterMarkets. If you would like to listen to the full interviews, they are available on our website, smartermarkets.media on the SmarterMarkets Presents Media Page. They are also available on our second podcast channel, SmarterMarkets Presents available on all major podcast platforms. Our guests in order of appearance in this episode are Daniel Klier, CEO, South Pole; Margaret Kim, CEO, Gold Standard; Mandy Rambharos, CEO, Verra; Lisa DeMarco, CEO & Senior Partner, Resilient LLP; Juan Duran, CEO, EcoRegistry; Guy Turner, Managing Director of Carbon Markets, MSCI; Ed Morse, Senior Advisor, Hartree Partners; Sandeep Roy Choudhury, Director, VNV; Stephen Mackenzie, Managing Director, EduVOD Africa and Irungu Waggema, Business Development Sector Leader for Agriculture, Nairobi Securities Exchange (NSE); and the co-authors of *The Carbon Paradox*, Steve Zwick, Host, Bionic Planet & Renat Heuberger, CEO, Terra Impact Ventures.

Daniel Klier (04m 28s):

Daniel Klier, I am the Chief Executive for South Pole.

David Greely (04m 31s):

I know you are relatively new to your current position, so I have been asking everyone what they have been up to over the past year, but maybe you could tell us what brought you to South Pole and what you've been focused on.

Daniel Klier (04m 42s):

As you say, I am a bit more than a year into the job now. My, my own background is I spent a decade as a partner at McKinsey and then a decade building HSBC's climate finance offering and also running, running strategy. So my question was always, how do you mobilize money at scale for climate action and there are a few mechanisms that we successfully implemented the Green Bond franchise and others, but our main problem remains that everything is so bespoke. Transactions take forever. So the carbon market always came into my focus because it was one of the very few mechanisms how to mobilize money at scale and when South Pole approached me and the investors behind South Pole, clearly there was a, an opportunity that, that I could not miss. As you know, it's a 19 euro company, it's pretty much as old as the carbon market has been shaping the, the trajectory of the market.

Daniel Klier (05m 32s):

And the market is at a huge inflection point and I think to your question, sort of what have we been up to in the last year? I think that the two important angles to what we have been doing, one is building the robustness in the infrastructure that we are ready for a market that will feel a lot more like a compliance market coming out of the financial services industry. Every market crisis is an opportunity to improve the plumbing, improve the mechanisms, improve how we think about risk management, integrity, compliance, and all the, the foundational elements that you need to scale. And the second one is shifting our portfolio quite radically from a market that was very geared towards the voluntary market to a market that is heavily skewed in direction of Article 6, CORSIA domestic compliance markets in Japan, in in Australia, and the like where we see the, the big future of the industry.

David Greely (06m 28s):

And are there certain key pieces of infrastructure that you see as lacking on the financial side in the carbon markets?

Daniel Klier (06 36s):

I think it's generally a level of maturity. I always jokingly say we live in a very data rich infrastructure, poor environment. And I don't want to bring out the, the wonderful buzzword of AI, but I think AI actually allows us to fast track some of that because data actually, we can suddenly do so much more with that information. And there obviously are initiatives on improved data protocols and new registry systems. The bigger worry you have there is almost the proliferation of systems at some point we need to bring that together and standardize, but actually I think there is quite good progress in that space to move us to the, to the next level.

David Greely (07m 16s):

And when you are walking around the streets of New York this week for climate week, when you are here at IETA's North America Climate Summit, do you find people are, are receptive to your view of where the markets need to be going and what we need to be doing or do you see some areas where the conversation has to drive to consensus on that?

Daniel Klier (07m 34s):

I think the consensus is actually there. It is unclear who will lead that next step. Normally in a market that is going through significant shifts, you have bodies that are driving that action. Often policy makers, I mean, again, coming out of financial markets, it's a 500 year old industry that has a crisis every 10 to 15 years, right and you have regulators that are using the crisis to move the market forward. That clearly is missing at the moment and in the current political environment, it's hard to see who will actually take that leadership, right? So the market is a little bit left on its own, but the positive for me is that the actual on the ground transactions, investments, the capital is coming in that is still moving, right? Despite all the noise around us, people want to see this be successful and that gives me a lot of, lot of excitement and encouragement.

David Greely (08m 37s):

Absolutely and if you think about what you might like the next year to look like, are there certain things that people who are in the markets we could be accomplishing over the next year that would help advance progress on climate action to make the carbon markets more effective?

Daniel Klier (08m 56s):

I mean my, my main message to all the companies that I'm seeing, we had a big dinner last night, is we need to use the next 12 months to build the muscle in every company that the next off take transaction doesn't take 18 months, but we can start to reduce the, the transaction cost is cycle time. So I think the next 12 months we need to spend a lot of time that every company starts to do small removal transactions, small long-term off takes, just build that experience. Airlines that I am going to come into picture in 26 and 27, they need to make the first test purchases. So for me it's building the veils, building the infrastructure, building the confidence that actually the legal frameworks are working, the insurance contracts are working because we don't have time to do all of this in 27, 28 when the market really needs to, needs to scale.

David Greely (09m 48s):

Margaret Kim, CEO, Gold Standard

Margaret Kim (09m 52s):

So we are currently working on three things. Integrity, accessibility and scalability. So integrity not just on carbon projects or climate solutions, but across the entire value chain of carbon projects. So from the rule setting to high integrity monitoring and all the way down to how corporates claim the benefit because the integrity can't just sit on the supply side, it has to be shared across the entire value chain from all the way supply side all the way to the buyer side. So gold standard's been working on how do we evolve as a standard to align with science in order to keep up with that integrity stance and also working with corporates to understand what is best practice, how do you claim an impact outcome and how can you account for that in, in your value chain and beyond. So those are some of the work we do on integrity.

Margaret Kim (10m 54s):

Accessibility is quite challenging these days because we have the most fragmented market today. So there is not just voluntary carbon market, there is emerging compliance markets like the Article 6, CORSIA, the aviation mechanism, as well as domestic markets where national governments are developing their own standards and frameworks. So the key for gold standard is how can we get ready? How can we help these projects to be ready to access various markets as the goalpost is changing on a daily basis. So how can we ensure that these projects can be financed to deliver real impact on the ground and finally, scalability, I think this is sometimes often not

prioritized in the conversations because scalability is key in carbon markets. So what are some of the technology solutions we can use in order to scale that and what are some of the innovative ideas, public and private partnerships that we can innovate and enable in order to scale the market? So those are the three things we are focused on.

David Greely (12m 01s):

And when you think about the conference this year, what brought you here? What made you decide to come? I know you wake up and go to bed thinking about carbon markets, but what were you hoping to talk about at this conference with people?

Margaret Kim (12m 15s):

One, purely selfishly speaking, I wanted to be inspired because I know there's action in the private sector. So I wanted to meet with our stakeholders and partners to understand what kind of progress they are making in the midst of all the geopolitical turmoil and challenges we face. So that's one and second is how do we bring the conversation from standard setting to implementation because we get quite stuck in the technocratic details of the standard setting, but what's really important is are we actually entering into implementation and are we thinking about scalable solutions to further progress on that implementation journey? So hopefully I will have many of those conversations with our stakeholders.

David Greely (13m 02s):

What do you think is the most important thing that you and the other standards setting organizations can do to facilitate that journey right now?

Margaret Kim (13m 11s):

I think there is several things, obviously. One is ensuring that integrity so that we don't have layers and layers and layers. Sort of another standard, another standard trying to define that. So as a standard setting body, we need to uphold that integrity principles and values and also safeguards. The second is not to lose sight of the benefits of these projects. So they are not just carbon projects, they're there are holistic solution often delivering adaptation, resilience benefits and delivering nature preservation benefits, biodiversity benefits and most importantly for the global south, delivering sustainable development benefits because it's all about growth and development. So I think not to lose sight of that across the value chain of carbon markets is going to be quite important.

David Greely (14m 06s):

And when you think ahead to the next year, what is you think the most important thing that we collectively everyone who's involved in carbon and climate what would be the most effective thing that we could accomplish over the next year to really make progress on the climate and advancing the effectiveness of carbon markets?

Margaret Kim (14m 25s):

Two parts, one is making high integrity, easy to achieve. So that will entail harmonization of the rules, alignment with fragmented markets, but also use of technology, how to mobilize digital MRV solutions to ensure that that streamlines the process and also increases the transparency and credibility of those projects and also demonstrating that and really highlighting the success. The second part is I think one of the things that we get lost in this is a very technocratic crowd as well. So how not to lose sight of that sustainable development impact these projects are delivering. So it's not just about thousand year permanence, but really about bringing improved livelihoods, creating jobs, improving health conditions of families. So to make sure that we can collectively demonstrate that success is gonna be my hope for next year.

David Greely (15m 27s):

Mandy Rambharos, CEO, Verra.

Mandy Rambharos (15m 31s):

A big thing for us right now is our digitalization strategy, which we've started working on now for quite a while and it really is, you know, I always say that the, when you get your delivery of your pizza, what you want to see is where the pizza is. Even if he is 5 minutes late, you can see where the guy is. And I think that was a problem we had with projects where you weren't able to see where it was in that project pipeline. So now with our digital submission tool, you can submit your project digitally, but we also have project hub and project tracker, which are part of this digitalization journey that helps you reduce that uncertainty of where your project is along the pipeline and then also digitalizing methodologies themselves. So that's a really important part of the project submission process to take away some of the uncertainties to take away some of the frustration.

Mandy Rambharos (16m 19s):

And then on the other side of that is digital monitoring, reporting and verification. So what we are hearing from buyers is we want to see data integrity, we want to see data traceability, transparency and being able to do that digitally is gonna be extremely important. So we're running a couple of pilots with DMRV providers in order to do that. So that's big for us. It's a big chunk of what we are currently doing. What we are looking at is how do we make the process more efficient, speed it up, reduce risk so you can see the data, anybody can go into project hub, see the data and trace where the development of the credits all the way to issuance what it looks like. So I think that's going to increase a lot of integrity in the market and give a lot of certainty to buyers and investors.

David Greely (17m 02s):

And I am curious, outside of the digitalization strategy, which is so important, what are some of the other topics that either you are hearing discussed here at the conference or other areas of focus that you would like kind of the broader carbon community to be focused on right now?

Mandy Rambharos (17m 18s):

So there's a lot of discussion now in the market on what sort of insurance tools can you use in a carbon market and you hear from traditional insurers saying, well you know, if you insure your home you have to renew it every year and we have to check all of this stuff and you are asking us to ensure projects of trees standing for 40 years. So unprecedented, that's a very important discussion. I think whoever is in this market needs to weigh in on that. There are some of the, the new insurers coming out that are coming up with some innovative ideas and interesting ideas around that. I do think we all need to weigh in on that and say we think this can work, this is our risk appetite in this market. I think sometimes there's zero risk appetite. We need to look at what is our risk appetite around that and what instruments will make sense in the carbon market.

David Greely (18m 06s):

And one thing we have seen this year is there's been this strong growth in compliance markets around the world. You've got Article 6 CORSIA and an openness among some compliance markets to accept credits from outside their own system. I was curious, how do you see Verra's role in a world and how do you see it kind of integrating if at all, with what's happening on the regulatory and compliance side?

Mandy Rambharos (18m 31s):

That's one of my favorite topics is let's drop the V in the VCM because it's about bringing together the compliance markets and the voluntary markets into a carbon market. So just a slight going off on a tangent, a slide variation is we want to see growth in the market, we are going to see growth in demand because carbon financing is actually making a difference to communities. It's actually making a difference to decarbonization. So when we talk about how to scale the market, one of the things we have to reduce the fragmentation in the market. And so when we have compliance versus voluntary, we introducing more fragmentation. So one of the things we have been doing is we have been working with a number of governments signing memorandum of understanding on how to integrate a standard independent crediting standard program like Verra into government regulation. So there's a couple of governments, Singapore, Columbia, South Africa, Peru who in their climate regulations in their country have said that you can use the independent crediting program credits generated through a Verra standard to meet your compliance target, whether it's a carbon tax or whatever it might be in your country.

Mandy Rambharos (19m 37s):

So quite a few governments have done that. We are working with more governments to do that. I do think though there's a lot of room for bringing the voluntary and the compliance markets together using the same methodologies and making sure we reduce some of the fragmentation because it also confuses the buyers, right when we have all of the separation. CORSIA is important and I think a lot of people are looking for CORSIA to drive demand in the market as well. So working more closely with CORSIA, making sure that they also proving methodologies that ICVCM approved. Having some standardization around that is also important.

David Greely (20m 10s):

When you think about it, what's the most important thing that we collectively could accomplish over the next year to really make progress on the climate and advancing the carbon markets and making them more effective?

Mandy Rambharos (20m 24s):

So we in the space, it's a small world in the carbon market, we need to stop fighting with each other and we need to stop having this 'or' market and move towards an 'and' market. So it's not removals or reductions, removals and reductions. It's not nature or tech, it's nature and tech. So I really think we need to have these open frank conversations with each other as practitioners in the market to say, can we actually look at the fact that the climate is changing? We need all the tools in our toolbox and it sounds very clichéd, but we do need all the solutions and we are really just doing the work of the anti-carbon markets guys when we have infighting, right? So it's this, look at how we turn this from an 'or' market into an 'and' market is something I think if we agree we'll really progress in the next year.

Lisa DeMarco (21m 13s):

Lisa DeMarco with Resilient LLP where I sit as a CEO and Senior Partner. A fair amount of our work with the changing ethos around climate change has been focused on infrastructure. So this specific legislative and regulatory frameworks for a number of countries, particularly in the G77. We have a little focus on Africa right now and then a lot of transactions around removals that we're seeing announced in and around this climate week. So I am very excited about that. And last but not least, the correlation between energy transition writ large and infrastructure, hardcore infrastructure and climate.

David Greely (21m 54s):

And where do you see like the biggest need for infrastructure and what types is it so that people can adapt and be resilient to climate change? Or is there another path

Lisa DeMarco (22m 06s):

In terms of the climate machinery in order to encourage climate finance, we need a regulatory regime that makes sense and we need to figure out what it is when we are talking about a carbon credit. So we put a lot of work into the unit law process, which is examining what is the legal nature of a voluntary carbon credit? Is it a financial instrument, is it property? What type of property and where are the rights associated with it? So that's been a big amount of interesting work and then on the pure infrastructure it's really around energy and its use. So electricity transition, phasing out of coal fire generation, we have done a number of those projects and looking at cleaning up existing energy infrastructure particularly and related to industrial decarbonization

David Greely (22m 58s):

Being at the conference yesterday today I know it's early in the morning on the second day here. Any interesting ideas you're hearing or what's the nature of the conversation?

Lisa DeMarco (23m 08s):

Yesterday I spent a lot of time in the accounting discussion and as dry as that can be, it is such a critical function. So when we talk about carbon market infrastructure, getting the associated accounting treatment down pat, so regular public issuers can account for what they're doing and state what they're doing in a way that doesn't get them into litigation trouble and is consistent across all markets. Really important.

David Greely (23m 39s):

A lot of the conversations I have been hearing recently are about the kind of blossoming of compliance markets around the world. Now that we have kind of got some settlement on Article 6 and I am curious, when you are thinking about working through the, the voluntary carbon market infrastructure, the accounting, the legal status, how do you see that complimenting or not complimenting what's happening in compliance markets?

Lisa DeMarco (24m 02s):

I think we are going to be consistent over three years On that point, I see a convergence, complete convergence between the notional two markets. But if you look at market infrastructure like Singapore, like California, there is room for innovation credits taking the form of offsets or California offset credits or Singapore's compliance credits to play into a regulated system and you want that, you don't want to be static. You want to encourage creative thinking, new infrastructure, new ideas and new emission removals and reductions into the system. So I do see that as very, very harmonized and complimentary and big convergence.

David Greely (24m 44s):

And you know, just curious for our audience, what do you think are like some of the most important developments in the carbon markets that that you are following and perhaps they should be following?

Lisa DeMarco (24m 52s):

We are definitely watching the EUS integration play a very, very significantly we are watching governance and I know that sounds boring, but we real, really are watching governance because a stable, predictable, certain system that is transparent and can withstand an audit function is critical to the long-term credibility of the markets. So we're watching that in many forms and I think that's pretty unique for us as a law firm. And we have been writing a lot on governance fiduciary duty and associated duty of care and the obligation of directors of companies. So we just issued a big opinion with a commonwealth climate law initiative on nature related risk, which is associated with climate of course and we really focus laser focus on the director's duties around governance. Good governance,

David Greely (25m 49s):

When you talk about governance, accounting comes to my mind is like making these ready to be institutional grade. It sounds like kind of getting it on a par with the other processes that banks and large corporations is that the end goal

Lisa DeMarco (26m 05s):

Known stable, predictable units that aren't subject to 51 flavors, but precise definition of what it is, what are the minimum threshold criteria and the associated elements of how they're traded in a way that is enforceable by law.

David Greely (26m 25s):

If you think about what you would like to see happen, say over the next year, what do you think folks like the people who come to this conference could be doing collectively? Like what could we accomplish over the next year that would really help to move climate action forward, make carbon markets more effective?

Lisa DeMarco (26m 42s):

I think we need to stop the circular firing squad and that's not a positive answer, that's a negative answer but on the positive front, getting these infrastructure elements in play, carbon market infrastructure elements in play, knowing what it is, the voluntary carbon credit, any carbon credit, getting jurisdictions to have a legislative framework, a regulatory framework that's very harmonized among every country in the world very important and then thirdly, understanding how we account for them would be great. Get on the same page.

Juan Duran (27m 15s):

Juan Duran, CEO of EcoRegistry. A lot has changed in the last year actually because I do believe that the sentiment in the market is more positive than last year and there is a lot of progress in the digitization process. So that has encouraged us at Eco registry and since we are a software provider actually to crediting programs, countries and states. So that has encouraged us to increase our activities in innovation in data analytics, AI implementation, you know, and also those integrations with different stakeholders in the markets that will enable scale the carbon markets. So that's what we are doing these.

David Greely (27m 59s):

And in the voluntary carbon markets, you have always had a number of registries, a number of standard organizations. Now we are seeing a strong growth in compliance markets around the world. How difficult is it to kind of harmonize a lot of this registry system and even the digitization? How do you pull this all together?

Juan Duran (28m 20s):

Very good question because it's difficult, but I see that as an opportunity as well. So actually right now what is happening around the globe is that there are fragmented markets like a carbon tax or carbon tax in Americas, in Africa, in Asia, Southeast Asia, you know, very specific markets and for those markets what you need to operate is actually the capability to get all the information from all the projects, make the information available so that the buyers can make the decision to participate in that market and also to integrate and inter-operate with the registries from those countries specifically. That creates I see that as an opportunity because since we're a software provider, what we do is that part of the registry where we can connect to other systems. So for us as an opportunity for other ones is a barrier.

David Greely (29m 13s):

And what brought you back to the conference this year? What did you want to talk about?

Juan Duran (29m 18s):

So there has been a lot of development in the, let's call it different ideas to come with a common data model for carbon markets that will enable the interoperability between different registries, between different exchanges, marketplaces, anything those initiatives, let's say the carbon data open protocol or the Climate Data Steering Committee by the G20 or of course the integration of the Climate Action Data Trust. They have all actually run into the direction of connecting, enabling this standardized way of sharing information. I believe that is one of the main purposes why we are here to participate in those conversation. And actually some of the models were launched during this week, so it's important.

David Greely (30m 09s):

Any interesting new ideas or new models that have really popped out at you?

Juan Duran (30m 13s):

Yes, specifically how to use those standardized data models to integrate multiple platforms for example, to integrate with monitoring technology or to integrate with registries that collect all the information from different registries or to connect to countries, for example, so that the countries can have a good overview of the projects that are happening on their jurisdictions. So those are ideas that will enhance the capability for decision makers to act.

David Greely (30m 44s):

And I was curious, you know, as you have been at the conference and New York Climate Week broadly, maybe even outside of what you're working on at EcoRegistry, what are you hearing people talk about the most and do you feel like it's on the right track or is there something you wish they were talking about more?

Juan Duran (30m 59s):

It was yesterday in a very interesting conference that they were talking about that we also need integrity, but at the same time we need to be pragmatic. So we need to start the action, do the projects, do the process, and that will bring more projects. You know, they might not be perfect, but they might be good enough and good enough right now is important because we need to keep this moving and enabling this finance from the global north to the global south so that projects can actually benefit from it and continue buying.

David Greely (31m 34s):

And when you look at the carbon markets broadly, what is the most important development that you see happening in the markets today?

Juan Duran (31m 43s):

The digitization process is the one because the expectations from digital systems is that when you get all the information digitally from the ground then there is more integrity to it. So the quantification of the emissions reductions can be automatized and in that way you can have like a more robust quantification system. I believe that expectation from the market is important and we support that process and the other part that I believe has been part of the conferences here and it's important is coming back to what I said before, pragmatism, we need to move, we need to move faster and that's important right now.

Guy Turner (32m 32s):

Guy Turner, Managing Director of Carbon Markets, MSCI

David Greely (32m 44s):

In terms of the data that you are able to provide to the market, where do you find people are seeing as the most valuable right, right now? Like what are people coming to you for?

Guy Turner (32m 41s):

So we have had this broad platform policy analysis, prices, forecasts, project corporate level data, the people buying the carbon credits, the ratings. We have always had this very broad offering and I've often asked over the years, come on, there must be one or two areas that clients really want and the answer really is they access everything and it's the integrated sort of analysis that you can do when you can thread country level analysis to corporate sort of decarbonization strategies to carbon offset purchases, the prices, the quality, and then the forecasts and I think it's that holistic view that people really, the clients need rather than just sort of like buying one and looking at one aspect because it is a complicated space the carbon credit market, you know, operates in and you do have to

have 360 degree vision to understand, you know, where you are, what's coming down the pipe and you know, in the, the sort of the side winds that are gonna sort of buffer you.

David Greely (33m 41s):

And it feels like we have got, it's only going to get more complicated, right? We have a lot more compliance schemes launching globally around the world. How are you thinking about integrating that into the work you're doing at MSCI?

Guy Turner (33m 53s):

Yeah, we have been sort of talking about this for the last year or so and sort of what I used to call sort of unilateral world is moving to a multipolar carbon world where the old sort of bastions of demand in rich worlds in Europe and North America, the big corporates, yeah they still exist, but we have now got 15 jurisdictions around the world that are allowing the use of carbon credits to offset taxes as compliance schemes, everything from Singapore, Australia, Columbia, South Africa, etc., and these collectively add up to a sizable chunk or will do in, you know, 5 or so years' time. The challenge for an investor and project developer is you are now spread across more parts of the world and you have to understand each of those jurisdictions and what we are trying to do is, and what we are doing is bringing that all together in a very accessible sort of single place. They can say how, you know, if I've got a project, can I sell it to South Africa? Can I sell it to Columbia, can I sell it to California? If so, what are the dynamics? What are the eligibility requirements? How much am I going to be able to trade it for? So it just becomes a bit more extra work for the market. But the opportunity is

David Greely (35m 02s):

And I know this morning you were on a panel talking about the markets growing globally and I wanted to ask you what was the idea or the message you wanted to bring to that panel?

Guy Turner (35m 12s):

You know, I am a glass half full person and I have supported environmental markets in particular climate and carbon markets for dare I say, nearly two decades and I still feel very strongly that there's a really good business case and sort of societal case for that and if you look at where the developed world is now and the headwinds that we are facing politically, net zero has become a pejorative word in, in the UK and in in Europe in certain parts of the world it's getting harder to push through, you know, aggressive decarbonization policies because of the costs. There is complaints in Europe about the cost of electricity, the cost of energy, the effects on industrial competitiveness and governments are reacting to that. So if we still want to have some strong climate ambition, we can still do that and achieve that. If we use the international markets and we use the lowest cost forms of abatement elsewhere in the world rather than just those that are limited to where we happen to live and you know, the boundaries of our country.

David Greely (36m 16s):

And when you think ahead to the next year, is there something that you see that folks like those at this conference, participants in carbon markets from different backgrounds, is there something that we could be doing, we could be accomplishing over the next year that you would see as being really important to making better progress on the climate and developing more efficient and useful carbon markets?

Guy Turner (36m 42s):

When we do all of, all of our modeling and, and it's pretty obvious that, you know, the Paris targets are 2030, I mean that's still four years away. Maybe there's an electoral cycle that a lot of governments is going to, you know, face in between now and then. So there's a reason why governments have sort of, and corporates a lot of net zero or sort of low carbon targets have interim targets at 2030. The CORSIA scheme first compliance sort of deadline is end of 2027. So there's a number of deadlines that are sort of looming and carbon purchases, carbon credit purchases are gonna be part of those solutions. I would encourage all of those entities to bring them forward. Now that might be a smart strategy while the prices are where they are because the price curves that we're predicting are gonna go up. But I think it also, it would encourage more liquidity, it would encourage more activity, it would smooth out peaks and troughs in pricing and generally give confidence And you know, there is a learning by doing a sort of mantra that is very relevant. And the more we do and the more we transact rather than talk about transacting, the better we get at it and we work out what works and what doesn't work.

Ed Morse (37m 48s):

Ed Morse, Senior Advisor at Hartree Partners

David Greely (37m 52s):

So I know you have all had a big announcement recently, Mike Prokop, who has been another guest of the podcast and you have been working on, on a big project in the hydrogen space. I was hoping you could tell us a little bit about it.

Ed Morse (38m 02s):

So the project was really based on a recognition that the hydrogen market is really alive and kicking despite all of the headlines one sees about hydrogen projects being abandoned basically and what we who look at the hydrogen market in detail know is that demand for clean hydrogen outweighs the supply and availability of it and when you have a situation like that where you know how to make it cleaner than it's been and there is so much demand for it, you can help accelerate that market by helping to develop a benchmark for pricing it and help it make it more transparent by getting people to voluntarily provide information about their transactions in an anonymous anonymizing way to get a market going.

David Greely (38m 49s):

You have spent a, a long career in the energy markets explaining and helping people understand them and I would love to know like where does hydrogen fit in that energy supply stack, right because we have seen the shale revolution on the oil side, on the natural gas side. Where does hydrogen fit into this US energy supply mix?

Ed Morse (39m 08s):

Hydrogen actually is part of a revolution that took place in the energy sector about a century or so ago. It began with fertilizers actually. So there were a couple of people, Europeans who inventor what's called the Haber Bosch process and that process was one that enabled people to take nitrogen out of the air where it's in abundance and put it together with hydrogen and make artificial fertilizer. And to give you a sense of how dramatic that revolution was, artificial fertilizer is what has allowed the world to grow from 2 billion to 9 billion people. Shortly after that, the fact that there was a way to get hydrogen from a process and the process is called steam methane reforming, the refining business was getting going at the same time and that's because transport vehicles were starting to use gasoline and the refining process was basically a distillation process.

Ed Morse (40m 08s):

And depending on the crude oil, you have either got what you wanted or got too much of what you didn't want, and then aha, there was hydrogen that you found a way to get. And if you use hydrogen molecules to change the molecules of what you got from a distillation unit, aha, you got upgrading units that allowed people to maximize their production in a refinery of gasoline or diesel, whatever they wanted to do and then since this started with refining at exactly the same time, petrochemicals were invented and petrochemicals are exactly what happened in the upgrading of refining units, you use the hydrogen to change the molecular structure of other things and you can actually put molecules together and invent new products. And the world has really grown with the petrochemical industry dominating what is now energy demand or oil demand in the world. So it's old, it's a century old and only recently have people thought about in a more serious way in the past than they have in the past other uses of hydrogen than this industrial gas use for basically fertilizers, refining and petchems.

David Greely (41m 16s):

And when you think about the project you're working on now, what does success look like for you in terms of developing this hydrogen market in the Houston area?

Ed Morse (41m 26s):

The next steps in the project are to work with people who are at the formative stage of, of making a market. Some of them are well known, some of them are less well known. We are looking, working together with both the well-known ones and the less known well ones, the ones on the well less well-known side who have specialized in getting a lower carbon world and have specialized in developing benchmarks that are used in the world today. So our next step is to work with another party and to get companies to agree to provide anonymized data to backstop what the indices are all about, see how much they are being used. We think as this gets going, we have a wheel that we have advertised on how demand, which is higher than supply at the moment for clean hydrogen will, with more transparency about what is available, at what level of carbon intensity that will spur on more supply and when there's more supply, there will be efficiencies of scale and there will be a lower price and there will be more demand than people or companies who want it with a subsidy behind them or want it just for the purity of it and meanwhile, as the market is developing, we are seeing in certain markets the price of hydrogen at less than a dollar a kilogram, which makes it compete with the old dirty gray hydrogen.

Sandeep Roy Choudhury (43m 00s):

I am Sandeep, I am Co-Founder and Director with VNV, project developer working across Asia and Africa. What we have been working on is to scale up first development scale up. Why because a lot of our markets are tapered towards net zero goals and a lot of the net zero goals hit towards 2040, 2045. So the projects need to be on the ground quickly, otherwise we wouldn't have much credits left to sell at that point of time. So yes, it's been a lot of work around scaling up existing pipeline. That's what we have been working on. Yes.

David Greely (43m 33s):

And what are the biggest challenges you are facing in scaling up?

Sandeep Roy Choudhury (43m 35s):

Methodological changes. They are extremely, extremely disruptive, if I may use that work. So you plan with a certain kind of rule and standard and then suddenly everything changes and I think the world could do with less number of earthquakes or is what I call them these days, we are suddenly hit by something that you did not see coming and they kind of take the financial models and everything out for a tizzy. Our kind of work needs a certain, which we do not have anymore as much as you can, you can only build in that much risk management, you know, at some point. I think that's been a challenge. Yes, there are methodological changes.

David Greely (44m 12s):

And what do you think in terms of, there's been a big movement towards compliance markets, so compliance markets growing globally as corporations have stepped back a bit from some of the net zero approaches they took a few years ago. How does that change the opportunities that you face having more compliance markets?

Sandeep Roy Choudhury (44m 32s):

Yes, it is a bit of a challenge as well. I will firstly, I think I, I would want to touch upon the challenges compliance market in a compliance market a ton is a ton and I think that is a challenge for, because different, we have different capital stacking for different kinds of projects and I don't think our compliance market is just, it's, it's a standard price. But that's the challenge. The opportunity is for us, I, we want to make our credits fungible to a voluntary net zero versus, I mean it could be a compliance scheme as well, right? So I think there is an opportunity there given that there is a death of buyers in the voluntary space right now. I think a lot of corporates are sitting on the fence, which is not great for the markets. And I think a compliance regime will push those corporates off their fences and I think that's great for the market. So it's a bit of a mixed bag for me. It is a challenge, but I think it could be an opportunity as well. And that world is coming as we speak, which is great. I think.

David Greely (45m 47s):

What are kind of the, the big ideas that you're hearing? Like where's the conversation at right now? And maybe where do you wish the conversation was?

Sandeep Roy Choudhury (45m 54s):

I think we're at a good place right now because I think till last year, and this was one of our personal as VNV I think of how you can blend in different financing mechanisms and I think there was a lot of talk to last year and this year what I see is a lot of actionable frameworks slash actual projects that could be worked on and I think that's a great thing. Whatever I have seen over the last two and a half days, it's been actual practical solutions, which is a big departure from what used to be mostly theoretical discussions. Really I think we need to not fall into the trap of perfection, stifling action, you know, and I think that's something that we need to keep an eye out on because at the end of the day we are in a climate crisis. We need project development and to, for it to scale, not from just from developers like us, but across the world and across different countries, we need to democratize project development that cannot happen unless you are a continuous improvement program and you will improve as you go. Nothing is perfect and we cannot wait for action till we get that perfect solution. And I think that's something that I see as well if you ask me over, over the last two days is I think there's so much of discussions around how we need to get this to be the most perfect solution and I don't think we will ever be there. I worry that that will stall action and that for me, I think we need to simplify, we need to be practical about what we think about other solutions out there.

David Greely (47m 27s):

And if you could have your wish list of changes that could be made that would make project development more straightforward, easier to scale projects, what would be at the top of that list?

Sandeep Roy Choudhury (47m 38s):

One, one of the big, big ticket items, and this is something that we've been discussing with the standards, so it's no knee jerk retroactive actions because there was a capital deployment basis. The rule of the day, you can't come in five years later and say, guys, sorry, that was not the rule anymore. I mean, that is not the rule anymore and it applies from the time you started the project and it's, it's detrimental. What it does is it increases the risk profile of projects, which is not what we want right now. We want everybody and everybody to deploy capital as soon as they can. And this kind of uncertainty is not good for the markets. So what is my wish list is number one, can we agree on a path forward and say that this is going to the path forward for today? What happens tomorrow?

Sandeep Roy Choudhury (48m 21s):

And I am all in for improvement. We will learn what we knew 10 years back is not what we know today. Ticket point forestry, I mean, you know, when I started out in my career, it was a complete, the data back in the day. Today it's a completely different thing, but you cannot apply that rule to 2012, today's rule to 2012. And that is something that I think is one of my big wish lists and I hope policy makers across the room and across this event kind of understand the ramifications of these rules and what it does

David Greely (48m 52s):

Here working at the project level. When you see what's happening with the capital being deployed with the projects going forward, what gives you optimism?

Sandeep Roy Choudhury (49 m 03s):

Okay, so what gives me optimism is I think we have, we had a very tumultuous period, right between 23 and 24 with various things. I think finally the market's realizing that we are getting the act together. I think there's a lot more confidence in the markets that we saw about 24 months back. And that is a very good thing. I mean, we have more businesses in this room right now than we did last year and the year before, which is a great thing and there are advanced commitments being made which are really pioneering in leadership positions that businesses are taking. And I, and I do hope you have asked me about the wish list for more businesses to take that leadership position because that will increase the momentum and I do see momentum now building up again and, and hopefully this, this carries on.

Irungu Waggema (49 m 44s):

Yes, my name is Irungu Waggema, I am with the Nairobi Securities Exchange in Nairobi.

Stephen Mackenzie (49m 53s):

My name is Stephen Mackenzie, I am the Managing Director, EduVOD Africa

David Greely (49m 57s):

I found your project really interesting because it didn't start out as a carbon project, it started out as an educational project that led into the carbon finance area. So I was wondering if you could just take our viewers a little bit through that. What was the educational challenge you were trying to solve and how did that lead you to the carbon markets?

Stephen Mackenzie (50m 18s):

Thank you very much. That's an interesting perspective. And just to give you briefly, the journey is in Kenya we have been solving the problem of digitizing education and one of the promises that at that time the government was promising the country was that the country was going to shift from analog to digital edge. That was 12 years ago leapfrog to when today and in retrospect, when I started the journey 11 years ago, I started comparing what had been promised and the execution or challenges that were faced in our case where we have over 98% of our schools have got no digital infrastructure. There's no ICT infrastructure, there is no internet, there is no networking in the schools. Placing tablets or laptops in the hands of educators and learners was basically insurmountable. How do we solve that? We went ahead and started analyzing the school budgets and out of the school budgets we picked a line item that was interesting and the light item was energy.

Stephen Mackenzie (51m 23s):

And this energy light item is split in two. There's a component that goes to grid power for their lighting and there is a component that going to fuel to run their kitchens. And the budget that goes into the fuel to run their kitchens is 70% of the energy budget and the 70% of the energy budget that is fuel that goes to the kit to run their kitchens is wood fuel. And we did some calculations and for us that was the point of intervention. We started and working to understand a little bit of the impact on climate, on the environment. And through

our analysis we established that a single school of let's say 500 students consumes on average about 200 mature trees per year for wood fuel. When we convert that into 4,500 schools, that's a million trees per year that are cut for wood fuel.

Stephen Mackenzie (51m 14s):

When we add the population for the Catholic schools, which are two times the Anglican schools, this gives us 3 million trees just on those two school systems for us. We, and we started asking ourselves, where are these trees? Why is the country a desert? I mean, where do these trees come from? That was for us, was the point of inflection in terms of how do we change, how do we convert this? And we designed the Anglican school system into a carbon project that led us into understanding carbon finance and then how do we actually develop this into a high integrity, high quality carbon project that we can now tap some of the carbon proceeds into solving our problem. And when we analyzed all that and understood the sector, two things cannot clearly that one out of our initial baseline studies that we could achieve significant savings in terms of costs from just transitioning the schools from wood fuel to clean electric cooking and savings out of that budget because the schools have got an annual budget as they spend on wood fuel and we could out of that 70% that they are spending, we could save an additional 50% of that and put that those funds into a pot for digitization to solve our problem.

David Greely (53m 26s):

When you, you look at the, the money you have been able to save by using less fuel move to electric cook stoves, the money you can generate through the carbon credits for that transition, how much of that cost that the, the per student cost of getting the technology into the schools, how much does that that cover for you past student costs?

Stephen Mackenzie (53m 53s):

It covers just about 90%. Yeah, it covers 90% of both the, the energy in terms of the transition to clean cooking and as well as digitization, both from the cost of energy saved and surplus of the carbon credits.

David Greely (54m 11s):

What, from your experience in kind of accessing carbon finance, developing important projects like this, what would you want people who are more operating in the financial end of those markets to understand about how to make these types of projects work from your experience?

Stephen Mackenzie (54m 28s):

It's a very elaborate process. There's a very big divide in terms of finding project, like what we are doing and the credibility that is required to bring that early stage funding to support these projects to the point that they can close and go to market.

Irungu Waggema (54m 43s):

Maybe from an exchange point of view. We have a new strategy, 2025, 2029, the Nairobi Securities Exchange and our purpose, the reason why we are engaging with different entrepreneurs, we want to transform our purpose is really to inspire Africa's transformation. So we feel that we have the capacity by bringing in the funding part even to inspire change and transformation of the continent one entrepreneur at a time. So for us it has been very eye-opening in terms of even the journey towards carbon finance. We are not carbon experts, but we got him. He was passionate. So for us it's been a journey of both learning but also through this strategic partnerships being able to come to where we are and even just being bold about it.

Steve Zwick (55m 26s):

My name is Steve Zwick, Bionic Planet and *The Carbon Paradox*.

Renat Heuberger (55m 32s):

I am Renat, Terra Impact Ventures and also *The Carbon Paradox*.

David Greely (55m 37s):

So a lot of guests I have been asking what they have been working on, but I guess for you guys it's the book. So can you tell us a little bit about it, maybe the idea behind the book and what you hope people will take away from it?

Steve Zwick (55m 48s):

The idea behind the book actually came from Renat and it goes back to issues we have talked about a lot on this show, which is that one of the problems we have with Carbon finance is that it's, you are trying to solve the wicked component of the wicked challenge we've ever faced and in so doing it's not going to work you know, you are always going to have problems, I should say and whenever people in general public don't understand why things go sideways in carbon finance and there has always been this challenge, how do you mainstream the legitimate debates? How do you make it just so that people can see what's really happening and not came up with these 25 individual paradoxes that all carbon projects seem to face things, everybody in this venue knows them, but people out there don't and that was what we talked about in the last episode and then the next idea, and that's what the book is about, was how do you make them something people who are outside the space will care about?

Steve Zwick (56m 43s):

And this was the idea to fictionalize it and this was also, again, Renat came up with this and it's three young naive kids who decide they are going to make a carbon project. They experience a very emotional event that draws them into a fictional country. And they have mentors, they have, you know, they hear a call to adventure, they cross the threshold and then they face these individual paradoxes and they become part of the fictionals. They become the obstacles that they have to overcome to achieve the goal that they want to in the end. So we hope it's a compelling read.

David Greely (57m 07s):

And I was curious, when you, when you come to a conference and take in a panel, are you in your mind checking off the paradoxes?

Renat Heuberger (57m 18s):

It's actually really funny you ask that because it's actually true. So it's all on, on panels, but in conversations, the more you think about those paradoxes, the more we realize that there's so many iterations that's happening in real life. And as Steve said, I think that's, I think the beauty of the book is that so many people on those conferences have experienced so many elements and in combination that gives kind of a feeling of helplessness. And I think the book in a way, clusters this controversy into five different topics. And what we of course hope to achieve is not to talk about problems always, but to cluster the problems. Put them in boxes like a psych psychologist would advise you, right? Put your problems in different boxes and then learn how to overcome them. Think about what can we do to move forward in spite of these issues instead of like spending the rest of our lives debating the same problems over and over again.

David Greely (55m 32s):

There's one thing to recognize the paradox and realize that certain things are never gonna be perfect. You brought up the idea ran out of, well then what do you do when you find yourself in that situation? So are there certain paradoxes that today you would be like, look, if you find yourself running up against this paradox, here's what you do to continue to move forward?

Renat Heuberger (58m 34s):

There are different paradoxes and some of them are really fundamentally unsolvable. And for those I think the only thing you can do is to accept them and acknowledge that these is there. Describe it transparently, openly and say, if we want to move ahead with these markets, if we want to make a difference, if we want to fund, we have to live with it. The alternative is to just stop, to drop the ball and do nothing. You want that, you don't want that, right? The second category is paradoxes that you can regulate. My favorite example is, is additionality. Everybody in this room has been talking for the past 20 years about this question, is the project additional or not? It's a question, you ultimately struggle to find a full answer, but you could regulate it, you could have a regulator just says, this is what it takes to be additional if you meet the criteria, yes. If not that's it. So I do hope that, for example, with the Article 6 of the UN now coming back onto the landscape that solve the paradoxes with still be there, but we will have clear regulations for them.

David Greely (59m 36s):

And I wanted to follow up with that because with Article 6, having largely been sorted last year at COP and we're seeing more compliance markets developing around the world. With your decades of experience for this next step, what advice would you have to offer for these developing compliance markets?

Steve Zwick (59m 59s):

To me there's a difference between compliance and voluntary. I know we were talking today about how they're, they're going to converge, but I do think the voluntary market will continue to exist as a place where you are experimenting with new methodologies maybe that don't exist, et cetera. So I think for a compliance market, one thing you should do is make sure you're coming up with

criteria where you, you know what you want to regulate for and you know that you're going to create a system within which everything works in aggregate. You know, don't try to do something perfect because again, we will never get that, but you can create a system and recognize different methodologies. You will know that if there is a thousand projects that follow these rules on, some will overperform, some will underperform, but the system will benefit. So that would be one thing I would say.

David Greely (60m 39s):

How about you, Renat, any advice for what's happening in the compliance markets today? So now there's another piece too of a number of existing compliance markets are looking to open themselves up to credits from outside the system. Any advice you would have on how to approach that?

Renat Heuberger (60m 57s):

So first of all, the good thing about compliance markets obviously is that they are bigger, more scalable, and it's perhaps a bit less emotional because as soon as you are in the voluntary market, the only thing you get back for buying a credit is the applause and the reputation and in compliance, it's just something you have to do and that could be good because it would take the sting a little bit out of the market. But what I strongly believe is that even compliance markets, they have to be wanted by the public because ultimately if the public is against them, governments will not go ahead with those compliance markets. So even if it's compliance, I think it's very important that we are learning the lessons, we are learning from the paradoxes, and we start communicating better. The narrative is the problem. So these paradoxes have to be on the table, otherwise we won't get the public support to really go ahead with compliance markets. So I do hope that we are also contributing to instill like the idea and the idealism that in spite of all the problems, things can be done, things have to be done.

David Greely (62m 03s):

Thanks again to all of our guests and to IETA for partnering with us at their North America Climate Summit 2025 in New York City. We hope you enjoyed the episode. If you would like to listen to the full interviews, they are available on our website, smartermarkets.media on the SmarterMarkets Presents Media page. They are also available on our second podcast channel, SmarterMarkets Presents available on all major podcast platforms. We will be back next Saturday morning with our regularly scheduled podcast. We hope you will join us.

Announcer (62m 32s):

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