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[00:00:00] **Jochen Schloesser:** Hamish good morning. Thanks for being here.

[00:00:07] **Hamish Reid:** Thank you for having me. Good morning.

[00:00:09] **Jochen Schloesser:** Lovely. So and thank you for everyone who's watching the video. As a quick introduction, my name is Jochen. I lead partnerships and sales development here at Terrascope and I'm joined by Hamish Reid from Pollination.

[00:00:21] **Jochen Schloesser:** And today we're going to talk about Financing the Regenerative Transition: Best Practices and Leveraging Scope 3 Data. So Hamish could you kindly begin by perhaps introducing yourself and telling us a bit more about Pollination itself?

[00:00:36] **Hamish Reid:** Sure. Thank you. So my name is Hamish Reid. I'm a managing director at Pollination.

[00:00:41] **Hamish Reid:** I have worked in the food industry for more than 30 years. First half of my career was in marketing roles with the big multinationals, Fonterra in New Zealand, Danone in France and in the UK, and latterly, for milk nutrition company Synlait back in New Zealand. The second half of [00:01:00] my career pivoted to where brand meets sustainability, actually, and I've been working in this field since 2005.

[00:01:08] **Hamish Reid:** And what I'm really interested in is how brands can build really deep, authentic connections with sustainability issues like climate and nature. To build better comms and better positioning for their brands out to their audiences and in the process of doing that, hopefully they can boost their economic success also.

[00:01:29] **Hamish Reid:** So I joined Pollination around two years ago. We are a investment and advisory firm that is solely focused on climate and nature issues. We work across a number of sectors. The sector that I lead around the world is our food and fiber sector. So, we work with global multinational companies that are interested in pivoting their climate and nature credentials.

[00:01:53] **Hamish Reid:** But we also work with early journey companies that are just starting out on their program. We also work with system [00:02:00] influencers, funders and policy makers to help ease the pressure and reduce the friction for those companies to act on climate and nature.

[00:02:10] **Jochen Schloesser:** Yeah. So I'm a big fan of Pollination.

[00:02:12] **Jochen Schloesser:** And then one of the reasons is I know you work on so many of the different pieces that are required to actually make a dent in, in the climate transition. And along those lines, I know you recently published a paper, Resilient Farms and Food Supply. Can you tell me a bit more about what was the thinking that went into creating that paper?

[00:02:32] **Hamish Reid:** Yeah, I, that's, I think it's a realization that well, in my more than 30 years in the food industry, it's only really recently that the big food companies and the, the leaders of the big food companies are really starting to realize that we're probably not heading in the right direction when it comes to climate change and nature loss in the food industry. As an industry, you know, we all know that we're hugely dependent upon natural systems like stable climate and [00:03:00] clean and plentiful water supply and healthy soils and ecosystem services, all of those great things. But most of those things that we deeply depend upon are in some form of decline.

[00:03:10] **Hamish Reid:** Some are in freefall and some are just seeing each year an incremental decline. And when it comes to climate specifically, the two biggest sources of greenhouse gas emissions in the world. Food production and energy and energy is, is really on a, on a strong path to decarbonization now and food is somewhat behind and we're just not going to be able to meet our global climate targets unless we tackle the emissions associated with and the nature loss associated with global production systems.

[00:03:45] **Hamish Reid:** And so this is a big, a big challenge. And, you know, even some of the statistics are really quite terrifying. You can, for example, we know that even if we stopped emissions from fuel from fossil fuels right now, business as usual [00:04:00] emissions from the food production system would take us way beyond the 1. 5 degree ceiling. In fact, business as usual from food would take us pretty much all the way to the 2 degree ceiling. It would consume all of the carbon budget allocated to global systems across all sectors from 2020 to 2100. That means that every other sector on the planet pretty much needs to be net zero in order for the food industry to continue as it is.

[00:04:30] **Hamish Reid:** So to hit the 1. 5 degree ceiling, we've got to divide our emissions by three, and every other sector has to be net zero in order for us to stay below that critical ceiling. So, you know, those are pretty, some pretty terrifying numbers, and we talked to the food industry about that. There's a lean forward moment, and people really understand The scale of the challenge that we're facing and so the smart companies are really now asking themselves, you know, how [00:05:00] do we go about limiting our climate impact so we stay below that 1. 5 degree limit and how do we protect and restore nature, but critically, how do we do both of those things, whilst ensuring that we are able to feed the planet, more than 10 billion people by mid century. So that, that was, I, I think the, the thrust behind the paper was facing up to that, that big challenge that we face as a global food industry.

[00:05:29] **Jochen Schloesser:** Completely understand. And the, the, the figures are quite, quite baffling, aren't they? So we really need to figure out a way to make a dent in it all. One of the things that really resonated from me for your paper, however, which I think is largely what inspired some of this conversation is you don't think about carbon in a vacuum.

[00:05:49] **Jochen Schloesser:** It isn't just, okay, reducing carbon for reducing carbon's sake. I think you make some really interesting observations about how carbon influences the, [00:06:00] the resilience of food company supply chains, right? So I think you made this really interesting observation that actually changes need to happen independent of carbon.

[00:06:09] **Jochen Schloesser:** Can you tell us a little bit more about what that means from the paper?

[00:06:14] **Hamish Reid:** Yeah. Well, you know, everything in the food system is incredibly linked. and dependent upon one another. And we're seeing climate events that putting massive shocks through the supply system and the resilience of manufacturers and brand owners ability to serve their, their customers and consumers.

[00:06:37] **Hamish Reid:** We're recently talking with one of the world's leading potato producers, and they were saying that Every year, somewhere in the world, they have a climate related shock to their yield performance in the order of 30%. So, that's a staggering number that they're having to deal with, and the incidence of those [00:07:00] shocks are coming more and more frequently.

[00:07:03] **Hamish Reid:** So what that means is that if better farming systems were implemented, there would be greater resilience built into the supply system that would better withstand those types of climate shocks. And that means doing the best with natural systems, protecting soil protecting biodiversity and ecosystem services that we're so dependent upon in the food production world to better stand up to these kinds of shocks that we're seeing in the system.

[00:07:36] **Hamish Reid:** So I think that those numbers I talked about before are terrifying and there's some equally terrifying ones in the nature world, of course, also like the extent to which we've been responsible for soil loss and water degradation and biodiversity loss - all of these sorts of things, but they're, they're also interlinked with each other, that when one area is boosted, it [00:08:00] has a positive knock on effect to the other.

[00:08:02] **Hamish Reid:** So that's why we think, and many of the world's leading food companies, are seeing the transition to regenerative agricultural systems. as being a critical lever for boosting resilience, but also a potential lever for reducing the climate impact of the food system that can then result in a multiplier effect of getting into a better place.

[00:08:25] **Jochen Schloesser:** Thanks Hamish. So it seems like regenerative agriculture is really one of these links, right? That ties these two pieces together. The resilience part and the, the kind of physical risk side along with the, the climate piece. Can you give us some example of what these regenerative farming practices actually look like?

[00:08:46] **Hamish Reid:** Yeah, that, well, that's, that's an interesting thing because I wish it was so simple, but that the regenerative, the transition to regenerative system is so customized, not only from, you know, crop to crop [00:09:00] and region to region, but it can be required a different approach, farm by farm, depending upon soil type and microclimates and all of these sorts of things.

[00:09:11] **Hamish Reid:** So, the key thing about transition to regenerative is that it has to be hugely customized to the needs of the local geography, you know, the type of, if it's an animal protein or a crop, you know, that all of these different factors, different local factors need to be considered to build a really effective system.

[00:09:32] **Hamish Reid:** So I'm afraid that one size doesn't fit all a very customized approach. Landscape by landscape, crop by crop, input by input, needs to be considered and deeply thought through before an implementation plan can be put into place.

[00:09:49] **Jochen Schloesser:** Yeah, so it seems like it is it's a bit of a trick question, by the way, so I acknowledge that, but it's a very bespoke approach, it sounds like, at least as of now, that would have to be taken for, for companies based [00:10:00] on their own specific supply chains.

[00:10:02] **Jochen Schloesser:** One of the things the paper mentioned that I thought was a really interesting insight is that only 10 percent of companies have budgeted for regenerative agriculture transitions. And so I was just wondering do you have advice or thoughts you could share on what are perhaps financing models or incentives that could be used to encourage a bigger adoption of these types of practices.

[00:10:27] **Hamish Reid:** Yeah. So what, what we're seeing is well, what we have seen in the past is quite a piecemeal approach applied to transition. And that's just not working. What we're finding that the global leaders are doing is they're coalescing around a more programmatic approach to transition. And we talk about that in the paper.

[00:10:50] **Hamish Reid:** And I think that's been a barrier to to why only a very small proportion of of companies that talk about transition to region are actually [00:11:00] putting money behind it because they've not yet been able to build a really solid business case, built upon a really programmatic approach to transition.

[00:11:10] **Hamish Reid:** So what we're seeing, I think the really leading companies doing is taking a step back from perhaps all of the individual dislocated initiatives, pilots, approaches, attempts to generate financing opportunities for transition into a more thoughtful, stepped back, high level view of what it takes to move a whole system towards a better position.

[00:11:36] **Hamish Reid:** And we've identified seven steps in that process. And it, it seems really simple when you step back and map it out, but it starts with just getting a really deep insight into that supply chain. So if a company chooses from materiality to assessments to pick a specific crop, for example, and to and to lean into that to begin with, then they need to get a really [00:12:00] deep understanding of all of the participants and the actors and the insights that are built in to that supply chain system. And they need to deeply understand all of those disparate actors. And we work in some value chains that the product changes hands 17 times before it reaches the consumers.

[00:12:18] **Hamish Reid:** So we can be really quite complex to map out how that works from upstream behind the farm gate all the way through to, a brand being presented to a consumer on a shelf on a supermarket, for example. So from that deep insight, some companies are starting to build commercial propositions for their customers or consumers that might generate some kind of a commercial return.

[00:12:41] **Hamish Reid:** We're not seeing a lot of that, we're seeing most companies jumping into strategy development after, off the back of a really good insight stage. And that means, you know, understanding the approach that they would take. It means building, ambition, and targets, and roadmaps and timelines - sets of [00:13:00] objectives that are really measurable for how they might transition.

[00:13:03] **Hamish Reid:** And then it gets into the important stuff. So the fourth phase is, is around designing the interventions behind the farm gate that can really move the dial when it comes to carbon and to regenerative principles, for example, so that's where they're working with technical assistance providers, agronomists, and the likes to deeply understand in a customized local way what are the 2, 3, 4, 5 things that we could do in that farming system to drive a transition? And making that step really simple for upstream producers and growers is actually critical to get their buy in and support. Then the fifth step, which is a really critical one, is around incentivizing.

[00:13:44] **Hamish Reid:** So it's all very well sharing the data and the knowledge with those participants, but how do you get them to act? How do you break down the barriers to adoption? What are the frictions that each of those actors in that value chain are facing that we could help them with in [00:14:00] order to get them to buy into that process of transition?

[00:14:03] **Hamish Reid:** That is a really critical step and that's where financing is obviously really critical. And then we moved to implementation and scaling into a, into a system test and develop and learn and roll out wider. And then the seventh step of course is measuring and reporting and verifying all that work, which takes you back to insight.

[00:14:19] **Hamish Reid:** And then you go around the circle again. So that's the process that we're seeing most companies taking, and many of them have done a lot of that work already, actually, they just haven't put it into a programmatic approach. Which makes it really difficult for them to build the financial business case to invest in that system to be able to, to adapt and evolve.

[00:14:41] **Jochen Schloesser:** So maybe, can you tell us a bit more about that then? Like what is you mentioned they've, they've done the work, but not through a process to be able to demonstrate a business case. Can you like unpack that a little bit? So what is, If you're doing all the activities, but it's like, what is required to get to a [00:15:00] solid business case so that if I'm a sustainability leader or manager, I can come, you know, I can put the plan in front of my board to say, hey, you should approve this. And here's the business case for, in this case, regenerative agriculture.

[00:15:12] **Hamish Reid:** Yeah, I think, I think that the key. missing link prevails is that a full collaborative approach isn't taken across all of those actors in a value chain. It's a much more piecemeal, narrow approach to transition that doesn't necessarily get the buy in from everywhere.

[00:15:34] **Hamish Reid:** And if you don't have the buy in from everywhere it's really difficult to build a compelling case. To invest and what companies are finding is that they can't invest on their own to drive deep transition unless they collaborate, collaborate fully across the value chain and understand across all of those actors where the [00:16:00] costs lie, where the benefits lie, and where the opportunities for transition rest in each of those stages. So by coming together in a collaborative group, and understanding at the brand owner-end that they just can't be responsible on their own to fund this whole transition, because those numbers are absolutely eye watering just in the next 10 years.

[00:16:24] **Hamish Reid:** To transition the cropping system to more regenerative principles is going to cost somewhere between 2.3 & 4.5 trillion dollars. So even the big companies like Nestle and Danone and Unilever and Mars, there's no way they can foot that bill. So they need to work much more collaboratively within the supply chain and on the periphery of the supply chain with financiers, for example, and insurers.

[00:16:54] **Hamish Reid:** To make that whole system work in a really cohesive way.

[00:16:59] **Jochen Schloesser:** [00:17:00] Understood. And I guess this, this, this begs the question then Hamish you've mentioned parts about the, the, the complexity because things are so bespoke, right? The costs, the benefits, the opportunities need to be specific to a supply chain.

[00:17:10] **Jochen Schloesser:** It Needs a lot of collaboration. It almost sounds. in a way too difficult to do. But you've seen examples of this in action. Can you give us some more insight behind that? When has this worked and what does that look like?

[00:17:25] **Hamish Reid:** Yeah, I think you're absolutely right. A lot of companies look at the scale of the transition and think this is just too hard.

[00:17:34] **Hamish Reid:** And that's probably why we're only seeing 10 percent of those. 79 companies that are putting money behind the, the, the action. So, you know, there's a big say-do gap as we call it. So, you know, where, where we're seeing success is companies deeply understanding their critical inputs into their food system and starting with one crop or one food system input at a time, and then [00:18:00] going deep on that, and getting some really good runs on the board.

[00:18:04] **Hamish Reid:** Might be in a narrow geography to begin with, with that one crop, but then that gives the business and the full value chain confidence that that shifting is possible, and then you can move outwards in concentric rings to, you know, have ideally a globally aligned approach to, to that particular value chain.

[00:18:27] **Hamish Reid:** And then with that confidence, other concentric rings of, of action begins to start. So there are some really great examples of this going on. And, that usually starts with a really effective pilot and the likes of Unilever have run, I think, something like 34 pilots over the past 10 or 15 years, they deeply understand the interventions that are required and in many different systems.

[00:18:51] **Hamish Reid:** Where we've seen a great example of all steps of that seven step process coming together really nicely is actually in almond growing [00:19:00] in, in California, and that started with a deep collaboration with a retailer and a brand owner that figured out that there was a really great opportunity to boost the nature outcomes of almond growing in that Central Californian Valley.

[00:19:15] **Hamish Reid:** So they worked, they had that ambition of really starting with a commercial end game in mind to build a differentiated product offer that can stay through their consumer research thing that they knew would be embraced by consumers. They then worked with the supply chain participants, including technical advisors to figure out, okay, what are the, what are the 2 or 3 things we would do on those almond farms, to start boosting biodiversity, for example, bee populations. So they just chose three or four very simple actions on those farms that could be applied in a sensitive way to be able to boost biodiversity outcomes. They then went [00:20:00] out to that group with this vision of what these things could, that could be implemented that could result in positive outcomes.

[00:20:07] **Hamish Reid:** They started to build an incentivization program around - this is the objective that we have across all of these actors in this value chain, from the retailer through to the brand owner through to the, through to the growers and through to the aggregators, all the, all the actors. You know, all the way through.

[00:20:24] **Hamish Reid:** Then they got to the question of, okay, how do we finance the implementation of those 3 or 4 things on those farms? So that's when they started to understand where, where the capital stack could come from. And the brand owner behind that said, okay, we are prepared to put a small premium on every pound of product, we take off those farms.

[00:20:48] **Hamish Reid:** If they implement those systems, we will pay them a little bit more. There was capital involved in, in making those transitions, so they knew that they would have to raise that likely through debt. But they [00:21:00] knew if they went to a commercial bank, those growers would be charged commercial interest rates on that debt because banks have a kind of a high threshold for, for risk.

[00:21:12] **Hamish Reid:** And when you make a change on a farm system, you know, there's always risk with yield reduction or whatever, and therefore, you know, commercial interest rates are required. So what they went out to was, was philanthropic sources of capital that were prepared to put that first loss, catalytic capital as we call it, in place, which would give the banks confidence that they could issue that debt at a basis point reduction as a result of that reduction in risk because the first loss would have been taken up by the catalytic philanthropic capital.

[00:21:46] **Hamish Reid:** So that resulted in a 9 to 1 leverage ratio with senior bank capital against philanthropic capital which gave those growers access to an easy capital stack to be [00:22:00] able to implement those changes which resulted in, in an all round win, a beautiful positioning on shelf consumers that flopped to it really great outcomes for those, for those growers that boosted the resilience of their system on farm that was funded in a, in a really sensible economic manner. So that case study, and many others like it, have proven this is possible. And this is what we spend most of our time doing at Pollination. We, we work with these gatherings, of value chains to design systems for better outcomes.

[00:22:41] **Jochen Schloesser:** Understood. Understood. Thank you. And I think you walked through, I mean, you walked through many interesting points there- the different parts of the ROI calculation. So it sounds like to some extent the brand was interested in, or willing to place a premium, was able to place a premium, the market kind of was, ready to absorb [00:23:00] that.

[00:23:00] **Jochen Schloesser:** But then on the on the other hand, you said there was an additional benefit around the shelf space, right? Which is a bit less kind of counterintuitive, but it sounds like you're able to find all the different benefits that form part of that business case. So those are some of the upsides. And then if I understand what you're saying correctly, it sounds like when it comes to the downsides or the costs, right, there may well be costs associated with shifting. But as part of that shift, you've been able to find clients that get access to things like philanthropic capital in order to help bridge that gap a little bit more, more effectively.

[00:23:33] **Hamish Reid:** That is critical. Finding those frictions and motivations at each stopping point in the value chain is first of all, identifying what they are.

[00:23:44] **Hamish Reid:** Through a deep insight stage and then designing a system that ensures everyone has skin in the game and everyone is motivated to participate by sharing the costs and the benefits in an appropriate and proportional way. So that is the [00:24:00] difference that we're seeing now, an openness to exploring in a much more collaborative way than we have in the past.

[00:24:08] **Hamish Reid:** In the past, it was, you know, I think, much more siloed in the approach. You know, we will do this. We expect you to do that. But that, that clearly hasn't worked. We're moving now, I think, to a much more sophisticated, collaborative approach, which brings all actors together in a really positive way, which is benefiting everyone.

[00:24:29] **Jochen Schloesser:** I feel you've teed me up for this one, so I can't, I cannot not ask it. You've mentioned it's, it's very, very sophisticated. It requires a lot of collaboration and information sharing between different parties. What's the role that you think technology can play in helping accelerate that?

[00:24:46] **Hamish Reid:** Yeah, that methodology falls over unless it's built upon really sound platforms of data and reporting. All of those actors are absolutely reliant upon [00:25:00] fairly robust data sets to be able to understand where they currently sit but also to be able to measure and report performance and quite often they're not rewarded for that performance unless that data is shared in a really open, transparent, verified manner.

[00:25:22] **Hamish Reid:** In a really compelling timed way, so, you know, it's, you can't wait three years to prove that you've, you've boosted resilience, or you've reduced emissions, or you're using less water, or whatever that may be, this reporting needs to be, you know, As live and as frequent as possible to provide really accurate, timely answers to the whole, the entire whole system performance.

[00:25:51] **Hamish Reid:** So, baselining is absolutely the critical starting point measuring all of those steps through the process. And then having that, [00:26:00] that data reported and verified in a, in a timely way is, is the minimum viable methodology for delivery of these sorts of programs.

[00:26:12] **Jochen Schloesser:** Thank you, Hamish. And maybe the, the last question that I'll, I'll have of you then at Terrascope, we have clients from throughout the, the food world, much like Pollination growers, manufacturers, distributors, retailers would you have any advice on where to get started for our audience if they don't know where to start?

[00:26:33] **Hamish Reid:** Well, I can be a bit cheeky here Jochen, can't I? I'd say they should start by calling Terrascope and Pollination, and we will help them with that start.

[00:26:41] **Hamish Reid:** Of course, but I think the very, the very first thing is to really deeply understand all of the inputs into your food system to understand which ones are most at risk when it comes to climate and nature stress.

[00:26:56] **Hamish Reid:** To prioritize which ones to go forward with [00:27:00] first, so that's kind of like a materiality assessment. And then to just pick one and start small. And build confidence throughout that value chain by bringing them together. With a really galvanizing and ambitious plan that is representative of all of their frictions and motivations.

[00:27:21] **Hamish Reid:** To get something going, and most companies go into that with you know, a bit of a dose of apprehension because nothing can be really thought through in, in its entirety from the outset. You've gotta go in with embracing obliquity as I think you would, you would call it. And then you learn and test and develop as you go, and that builds confidence and learnings to enable those, as I said before, a wider concentric ring to be taken on.

[00:27:51] **Hamish Reid:** And then success in that single input will lead to confidence to rolling a parallel process for the next most material [00:28:00] system. So making a start now in a little way with a single food system input is much more important than thinking about this deeply and taking five years to make a start in a, in a, you know, a much broader way.

[00:28:15] **Hamish Reid:** That would be my advice as to how, how to start up.

[00:28:19] **Speaker 3:** So, Hamish, you've, you've mentioned a few times here this point of the, the sophistication of this work seems like it can be quite tough at times. And you've mentioned these kind of global brands. Can you walk me through that a little bit?

[00:28:33] **Speaker 3:** Is this really only something for global brands to take into consideration? Or is it something that smaller players can also participate in?

[00:28:40] **Speaker 4:** Oh, absolutely. Absolutely not. This programmatic approach isn't the exclusive domain of the big global shaping food companies.

[00:28:49] **Speaker 4:** Anyone that works any company, large or small, unsophisticated or very sophisticated has a role to play in the transition. No [00:29:00] matter where they actually sit in the value chain, if they have the power to galvanize a group of actors in a value chain, upstream and downstream for wherever they may sit, no matter what the scale of their businesses, that is extremely important for them to get out and do, in our view.

[00:29:17] **Speaker 4:** It can certainly be that, that kind of a system can be triggered. By, by anyone in the food system, it certainly shouldn't be viewed as a hugely challenging approach to transition, that requires huge resources from huge sophisticated companies. In fact, quite often, the smaller companies are much more nimble and have the ability to act more quickly, deploy people and capital and capital much more effectively and faster to make progress quickly. That then results in adjacent industries or even competitors following their lead. So yeah, we're, we're seeing widespread adoption [00:30:00] of the programmatic approach. It doesn't rest uniquely amongst the, the big global shapers.

[00:30:05] **Jochen Schloesser:** Thank you, Hamish. It is always a pleasure to speak with you. So thank you. And very inspired by all the work that Pollination is doing and delighted to have you as a Terrascope partner. So thank you!

[00:30:17] **Hamish Reid:** Pleasure. Thanks so much for having me.