



# **Dr Rebecca Harding**

Interviewed by

**Jane Bird**

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Via Zoom

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*Welcome to the Archives of Information Technology where we capture the past and inspire the future. It's Tuesday 2<sup>nd</sup> August 2022 and we're talking on Zoom, as has become customary during the coronavirus pandemic. I'm Jane Bird and I have reported on technology and the IT and telecoms industry since the early 1980s for newspapers such as The Sunday Times and the Financial Times. Our contributor today is Dr Rebecca Harding, founder and chief executive of Coriolis Technologies, a company which provides trade and trade finance data and analytics for the trade finance sector. Prior to Coriolis she had a company called Delta Economics which she sold in 2015. Rebecca graduated from Sussex University with a BA in economics with German. She followed this with a doctorate on technology and HR and has held a number of senior economics posts, including at the Universities of Sussex and Brighton, the London Business School and the British Bankers' Association. Rebecca has also worked with the United Nations on paperless trading across the Commonwealth and the International Chamber of Commerce on legal reform to enable digital instruments in trade finance. She sits on international sustainability committees at the ICC and at the International Trade and Forfeiting Association. She has written many academic articles and is a regular speaker and conference moderator. Rebecca, welcome. I'm very much looking forward to hearing more about your professional life and experience in finance technology, entrepreneurship and sustainability.*

*So, if we could start at the beginning, perhaps you could tell me a bit about your childhood. Did you have a happy time? Were you, did you have supportive parents and a good time at school?*

So I think childhood's always interesting, isn't it? You look back on it and you think, you think those bits of it were absolutely amazing. When you're actually going through it you might think to yourself, I would want to change everything, and I think in a way that's what an entrepreneur is, somebody that wants to change things all the time. Was I happy at school? Absolutely. Was I a happy child? Absolutely. I think some of the things that I did stood me in very good stead for where I am now, in particular I do a lot of music and drama and I think nobody can underestimate the importance of music and drama for their education and how they present themselves as they go into the professional world, whatever they do. My parents were fantastic,

have a very loving family, loving sister, and that always stands you in good stead. One big thing as you set up businesses and you run through a career, particularly as a woman, is having supportive people around you, and I've always had that.

*Yeah, okay. So what about your schooling then, did you go to state schools?*

Yeah, my school was an ordinary comprehensive school in Essex. I went there when I was eleven and stayed there till I'd done A levels at the age of eighteen and then I went to Sussex University. There was a slight quirk to my education, I have to say, because I was a linguist and my school didn't teach German at A level, so I actually went to the boys' grammar school and did my A level German at the boys' grammar school. And it was, I was the first woman who did that, the first girl that did that, it was breaking, breaking with a lot of tradition at the time. So yes, I rattled a few cages at that point, but had a lot of fun doing it, as you can imagine, the only girl in an all-boys grammar school.

*So that was, was that just for that one A level? The other A levels you did at your original school then and...*

Yes, absolutely. So my other A levels I did at my original school. So I hope none of my teachers are listening right now, but I would say I wreaked havoc by none of them ever knowing where I was, because I was always on my way to the lessons at the other school.

*So you've had this – what shall we call it – sort of independent streak from the very early days then, evidently?*

Evidently. [laughs] Yes, I mean I've always, I've always been a self-starter, I've always been somebody that knows her own mind and I've always been somebody who has a very clear direction of what they want to get out of their life educationally and in career terms as well. So I think right from the word go, my learning has always been part of me, I've always wanted to read, I've always wanted to find out about other people, I've always wanted to find out about big sort of economic,

political, social issues. And that's what we're doing at Coriolis now, so it's a, it's always been part of me to solve those problems, I guess.

[00:05:06]

*And did you have supportive teachers? Did people guide you as to how you could sort of fulfil some of these ambitions?*

Well, you have to remember there's a slight generational gap here where, you know, at the time I was a bit quirky, I was very different, I didn't naturally fit into the mould of sort of either choosing sciences or arts, I crossed the spectrum but also had languages in my back... in my sort of armoury, if you like, that I wanted to explore as well. I've always been really interested in international things, so I learnt to speak German at a very early age and went- having gone on holiday there and carried on. And I think it's fair to say teachers at the school I was at, it was a co-educational comprehensive school, definitely had a difference between girls and boys, and that maybe didn't suit me as much as it might have done. But once I got to A level, I have to say, it was completely different and my A level German teacher was an inspiration, an absolute inspiration, and I think to this day, you know, I think of him almost every day of things he used to say, of books he recommended to read, of his whole philosophy on life, he was absolutely magnificent. So yes, I owe an awful lot to him.

*And the other, so what were the other two A levels? You did three A levels in total, did you? Or more?*

Well yeah, I did a general studies one, but nobody ever talks about those. I did economics and maths.

*Okay. So, as you say, that's quite a, for sort of earlier times, that's an unusual mixture, people did tend to do either sciences or arts. Okay. So, and then the drama you reckoned, so the drama you carried on at school or...*

I carried on drama until after I had children, actually. So I carried on drama until I was in my mid-twenties. I did it at university as well. But we used to go to the

Colchester and then the Essex Youth Theatre and it was fantastic preparation for just performing and getting over stage fright and knowing that at the end of the day the worst thing that can happen if you make a presentation and it goes badly is that people think it was rubbish and forget about it. So it was an amazing experience, learning all of that, and I've carried it with me, definitely.

*Oh, okay. And so then once you were at university you obviously decided that, you know, you liked academe and you wanted to stay on and do a Masters and then a doctorate?*

Yeah. I actually don't think there was ever a question in my mind about that. I come from an academic family, parents both in education and so I don't think there was ever any doubt in my mind that I would do that. In a way it was brilliant training for being an entrepreneur and I didn't realise it at the time, so if you follow my academic career through after I'd done my doctorate, I went on and looking at organisational change, I looked at technology, innovation, science and technology policy, and then eventually ended up in innovation and entrepreneurship at London Business School and published and wrote about all of that. So if you think about it, you're generating ideas all the time as an academic, you're thinking about ways of solving problems all the time as an academic, you're building up methodologies to think about a problem and then solve it and it's brilliant training for where you want to be if you're going to be an entrepreneur because your mindset deals with all of these things laterally all the time. And my training at Sussex University was excellent because it was a bit of politics, a bit of philosophy, a bit of economics, a bit of sociology, a lot of international relations and so it gave me a very hybrid background, and for somebody looking at technology and science now, it gives you that sort of inter-disciplinary approach that I think is absolutely essential in a big data world, because you know different pockets to get information from. And so that type of hybrid education was absolutely on the money for where we are now.

[00:09:49]

*Hm, that's interesting. So then what happened? Then you decided that you wanted to join in, well, did you join the Work Foundation first after you left...*

Yeah. So again, I've always, our house has always needed more money, so you have kids, they grow up, they need money, you need money, it's just life is expensive. And so I found myself needing to earn little bits and pieces of consultancy alongside and I did some work for various think-tanks while I was an academic. But by the time it got to 2002/3 I was beginning to want a change from a straight down the line teaching job. It was something I'd done, a lot of teaching, a lot of presenting, and I felt like I needed something else. So I left and went to the Work Foundation and developed some interests there, but also joined London Business School at the same time, so I had two part-time jobs alongside each other. And I was in the Foundation for Entrepreneurial Management and running something called the Global Entrepreneurship Monitor. So that gave me my first taste of being an entrepreneur, because obviously I'm finding out about what it's like to set up a business, but the other thing is that I didn't have a regular salary. Most people assume that academics have a safe salary and lots of holiday and things, I didn't, and so I had to generate my own salary and my own income and at that point I realised how difficult it was to do that and it gave me my first taste and actually made me realise that I could do it, which was interesting.

*So the – what did you say it was – the Global Entrepreneurship Monitor Programme?*

Yes.

*Is that right? So was that part of, that was under the auspices of London Business School, was it?*

At the time it was run by London Business School, yes.

*And so what did it, when you say that gave me what I needed or it made me realise I had what I needed, so what was all that then?*

So the Global Entrepreneurship Monitor was a study of entrepreneurial activity all the way around the world. So it was basically a survey to find out how much of it was going on in the adult population. So it was a little bit like something like the Labour

Force Survey where, you know, somebody phones you up and says d'you mind answering a few questions on entrepreneurship, just as you're about to put dinner in front of the kids or something like that. And so the survey went across, I ran that in the UK to start with and it was across the whole of the UK. It started off we had a sample of 2,000 individuals that we interviewed, and we went on and within two years we actually had 40,000 people that we were interviewing and a budget that was over half a million pounds a year, which for a, which for an academic project is pretty stunning. So I learnt that by helping people to understand that they needed data and then understanding their data needs, that there was scope for growing a business. And in 2007 I thought to myself, Rebecca, you've been doing this for a long time, because I had by then, five or six years. I'd also at the same time been head of corporate research at Deloitte, so I mean I had up to that point a very eclectic career. And I thought to myself, well, if you've been talking about entrepreneurship, particularly female entrepreneurship, for a very long time and how good it is for women to set up a business, and I thought if you don't do it yourself, you'll never have any credibility, so here I am.

[00:13:53]

*Okay. So that, and you did that in 2007, set up Delta Economics?*

Yeah.

*And so how was then, you know, to set up a business at that time, what was your experience?*

So I managed to keep life running with a little bit of teaching and a little bit of, well, I set up Delta Economics in 2006/7 because I was only part-time at London Business School. I ran a little bit of consulting alongside. And for the first period of time actually Delta was really difficult, because we'd decided we wanted to run events - think about the era, 2007/8, when you're first starting to grow a business, and we're talking about obviously the global financial crisis - and it was very, very, very tough. I have to say, we organised a conference, had contracts and everything for sponsorship and at the last minute our big sponsor fell out because of the global -

dropped out of the sponsorship – because they were embroiled in the global financial crisis and couldn't move ahead, leaving my husband and I with a huge bill. And I, my husband actually is an ecologist and studies animal species and things and went off to do a survey somewhere or the other on biodiversity, leaving me with a dog, two kids and a huge hole in our household budget that needed to be paid to the conference centre. And I remember taking the dog for a walk, over Beachy Head actually [laughs], and thinking to myself, what do I do now, because this is obviously my responsibility and I've got to get out of it. And I started to think about whether or not entrepreneurs all had to go through this process of sort of putting money in themselves, because all the data had told me it had, and how difficult it had to get before the business started to grow. And I thought, actually, academic kicks in at this point, that's quite an interesting bunch of questions. And by the time I got back to the car I'd walked about seven miles, the poor dog was on his knees, but I hadn't jumped over Beachy Head, which was a good thing, and I designed a survey. And the next day I happened to have a meeting with one of the major banks and I said, oh, how about we run this survey. They said, great, that's what we want and that's data that we would really like to have, and I started the process again, I grew another survey out of that particular position and again managed to raise sort of, yeah, half a million pounds around that type of thing. And then was extremely lucky because the same organisation said we'd like you to start analysing trade for us and international business, and the rest, as they say, is history. And that was in the post-financial crisis, 2011, just after we came out of the financial crisis, trade was everything and everybody wanted to know about international trade, international business, that was the flavour of the month, if you like, and somehow or the other I was in the right place at the right time with the right solution and Delta grew from there on.

[00:17:18]

*So your questions that you dreamed up in your head while walking around Beachy Head, for that survey, what sort of questions, what are we talking about there then?*

So, finding out why people set up businesses, the types of challenges they have to go through, the types of, the types of money they have to invest themselves. They were all the questions that I wanted to know the answer to. So, you know, ten, fifteen years



later we might be putting together a podcast or, you know, sitting down with our mates to answer the same questions. Back then I thought, actually, it would be really interesting to know whether or not other people have the same set of challenges that I've just had, and what they do to get through it. So I actually called it the Opportunities and Growth Study. So I wanted to understand not what makes people, just what makes people set up a business, but how they grow those businesses. And it was the most amazing thing because what we discovered was, during the process, and that project ran for three years and during the process of all of that we discovered all sorts of things about entrepreneurial businesses, about the differences between men and women and the profiles that they grow their businesses, you know, the capitalisation of female businesses compared to male businesses. We started to understand that whole process of internationalisation as well. But then the most important thing was that we discovered as part of that survey that companies actually aren't all driven just by a profit motive. More often than not the entrepreneur that wants to drive growth is motivated by things that are solving a problem, creating an innovation, you know, a much bigger picture. Also solving social or environmental problems as well, even back then, so we're talking 2010/2011 now.

*So, solving problems and, what was the other main driver did you say?*

Innovation. Innovation.

*Innovation. Yeah, yeah, yeah, yeah. Yeah, okay. So that you then worked for the- so, is that Barclays that you were...*

No. So it was HSBC, were the bank that funded the research. Barclays actually funded some work we did around social enterprise while I was with the Global Entrepreneurship Monitor, so they're not necessarily the most relevant.

*Okay, okay. So, and then, and so you worked for HBSC for a while, sort of working...*

I worked **with**. So Delta Economics was one of HSBC's suppliers of data and information on trade and obviously for this survey as well.

[00:20:17]

*Right. And so you're basically analysing their international trade data and...*

We created our- so this is what was interesting because, and this is where the big idea behind Coriolis started to emerge. Banks are very, very, very unwilling to let information about bank accounts and details of flows of money out, and the reason why is because they are very sensitive, it's client confidential information and they have to treat, for all sorts of reasons, that information very sensitively. So banks don't want to share data, they don't want to share data with each other and they don't want to share data with the rest of the world, unless it's data like survey data that they've generated. And that's completely understandable because it's confidential information. However, if you're going to understand trade and cross-border payments and cross-border transactions and interactions, you need to be able to understand how the money behind trade flows. So what we started to do at Delta Economics, and that I've now turned into a whole technology at Coriolis, is we started to aggregate trade data. So we started to pull together data from all the way around the world. In Delta's case we pulled it from the United Nations mostly, but we started to make estimates and run forecasts and provide data-based consultancy to our clients that allowed us to understand the patterns and the profiles of businesses that were within international trade. So we started to solve that problem and it was very much a business that was sort of a consulting focussed business because it was data and we produced data solutions for people that they then bought. So it was very different to Coriolis, but that was where the idea came from, that there was this huge data challenge within trade and trade finance that hadn't been solved and to some extent, it still hasn't been solved, and that's what Coriolis is doing.

*Right. And that, so just to drill down a little more deeply then. So when you say understanding trade finance, can you give two or three examples of what that means?*

Well, seventy per cent, eighty per cent of world trade somewhere, estimates vary, of the value of world trade. So people, when you think about world trade everybody thinks about stuff going on boats, going out from one port, landing in another port, being loaded onto a truck and taken to a supermarket or a shop or a factory, that's

what everybody thinks about with international trade. If you think about it, behind all of that is the banking system, and the banking system is responsible for a large amount of the finance behind that international trade. So when you look at the numbers, the banks, either by helping with senior debt, helping the companies themselves finance trade, or by providing some form of a bridging finance almost between when something leaves a port and lands somewhere else, and arrives somewhere else, that's what trade finance is. So I mean if you think about it, it is the biggest unknown sector for trade in the world, for anything in the world. It's worth, trade finance is worth something in the region of fourteen to fifteen trillion US dollars. So that's just the size of the market. If you then think about...

*That's an annual figure, presumably is it?*

[00:24:26]

That's an annual figure, yes. If you then think about what goes on within that process, it's cross-border payments, it's how a buyer pays a supplier, or how a supplier, how a supplier gets paid, so you can see it from either side of the equation. It's how you manage the risk that either the goods won't arrive or the buyer won't pay. It's how you manage the risk that either the buyer or the seller is selling on to somebody that you don't necessarily want to trade with, so things like, things like corruption and fraud or arms trade, and so on. It's, all of that is something that is incorporated within this whole sphere of trade finance. Now, if you then think, we haven't got adequate data and we don't really know what's happening in that space, then it becomes a big issue for the banks because they don't know where the risks are, they don't know where the problems are going to be. And we've seen recently over the last ten years, since the global financial crisis, the banks have been fined a huge amount of money for non-compliance with anti-money laundering and Know Your Client considerations, and they've been fined a huge amount for funding things that they shouldn't have been funding. So it's actually that data problem has become a really big one across the whole of trade finance.

[00:26:00]

*Okay. So going back to Delta Economics then, which you sold in 2015, that, was that just because that was the way to realise the wealth, that you wanted the money? Or what was the reason for selling?*

So, actually, you create success out of the failures that you have. And I didn't sell Delta for any money at all. I left because I didn't want to take it in the direction that at the time it was going to go in, so I decided that this was the end of my journey with Delta Economics and moved on into a bridge where I worked for the British Bankers' Association, found out more about banks, and then started to work in, set up Coriolis.

*Okay. So, as you say, I mean, yes, failure, it's all, I mean particularly the Californians are much more enthusiastic about failure than we are, the UK, sort of venture funding scene is, I know. But there it's very, very common to hear people say, you know, that they'd much rather back somebody who's had a few failures than somebody who, well, has never done anything, I suppose.*

I think failure's really interesting. So then if I start to look back over my entire last twenty years, one of the things that's really interesting from the work I did way back at London Business School was that if you look at female founders compared to male founders, they are always much more frightened of failing, the male founders are. There's this real fear of failure which acts as a barrier to them setting up a business in the first place. And I can completely understand why, because I would say I've had my fair share of failure through my career. And yes, I'm somebody, I'm on television the whole time, I've written tons of books, I've set up successful businesses, I raise money, I have clients and I'm well known in the space. But, if I look back, I learned from all of those points where things have gone wrong. Because – and this is the same thing as when you're trying to teach something to somebody – they won't accept that they have a problem with learning whatever it is that you want to teach them, then you can't teach them because they think they've solved the problem already. It's exactly the same thing. If you haven't failed, you haven't learned, you haven't admitted that things haven't gone as well as you might have wanted them to do. And I can remember, well, all the way through the world of entrepreneurship

since I've been studying it over the last twenty years, you can see very, very clearly the heroic entrepreneur who's there, they've raised millions, they've done this, they've done that, you know, and this is the type of role model that's put out there. And I think for me personally, yes, I am successful but I like to show that you can get to be successful even though you've had more than your fair share of failure through your life. And I think this is something that people don't understand and it brings out the humanity in you if you know that actually, things haven't gone well, it helps you understand other people, it helps you run your business, I hope, in a better way, because you're more able to understand the challenges that people are having with learning in a particular situation. And that's kind of my whole philosophy now.

[00:29:46]

*Right, okay. So then did you go straight on to set up Coriolis then, or...*

No. I took a pause. So I worked for the British Bankers' Association as Chief Economist for eighteen months, and I wrote a book, called *The Weaponization of Trade*, and it was actually *The Weaponization of Trade* I would argue that really relaunched Coriolis, because I was looking at all the trade data. I'd kind of kept my trade data running behind the scenes and I was looking at it and beginning to realise that what we were seeing was a big shift away from how we'd seen globalisation in the past. We weren't talking about opportunities any more, we were talking about enemies. We weren't talking about, we weren't talking about integrating supply chains, we were talking about the threat from China, we were suddenly imposing tariffs. And this is 2016, don't forget, so we had Brexit as well. We had a huge amount of economic nationalism beginning to come into our strategic thinking in Europe and in the United States and I said that the language around trade has effectively been weaponised and if we're not careful we will end up with a situation where global institutions like the World Trade Organisation and the rules-based international order start to break down. That was in 2017 and look at where we are now.

*Wow. So you certainly had some foresight there.*

It's, it was either foresight or just luck. But I mean it was the right book at the right time and it launched, it launched what we were doing in, what I wanted to do with Coriolis. So I set up Coriolis in 2017 as I was publishing that book, because while I was publishing it I went and I spoke at a big international event of banks, the Sibos conference, and the banks afterwards were absolutely mind-blown by it, they couldn't believe that some random lady had stood up and said your world's falling apart and you are effectively the foot soldiers in this war where there's weaponisation of trade, banks are going to be absolutely critical. And it created a lot of attention around what I was doing and at that point I realised that I needed a business and a structure to do it. So Coriolis came out of that.

[00:32:26]

*Okay. And so can you talk us through sort of the development of Coriolis since then?*

Certainly. So Coriolis has started to aggregate data. So the mission of Coriolis when it first started, and it was me and yeah, unfortunately my dog wasn't alive any more, but it was my dog in all but physical presence. But the idea was that we were always going to be the Bloomberg for trade and trade finance.

*The Bloomberg?*

Bloomberg. We were going to provide the information and the data in a timely and flexible way that anybody in trade finance could access at any point integrating data using artificial, the database on artificial intelligence, machine learning, etc, but they would be able to answer whatever problem they had with specifically tailored solutions for trade or trade finance. And what we've done is create almost a data fabric where we have trade data, we have customs and excise data, bill of lading data, we have company data, so we have 400 million companies that we have within our frameworks, and we have other macro-economic data as well. And we've integrated all of this into one place. We're beginning to integrate satellite data, we're beginning to integrate higher frequency type of data, and so it's all this information all in one place, all about international trade. And each of those forms a separate product, but if you integrate them together, then it can create very specific solutions. And about

eighteen months ago, one of my clients said to me, Rebecca, wouldn't it be wonderful if we could put a passport on every single transaction that we do for sustainability, for their ESG status – their Environment Social and Governance status – can we do it? Think about the problem that that's trying to solve, it's absolutely colossal, it's literally boiling the ocean. So I thought, I don't see any reason why we can't, so I said yes. [laughs] And then I went away and thought about it for a little while and I thought, well, how do you do this? And this was another walking the virtual dog moment where I stepped back and I thought, take it down to what you know, rather than what you don't know. Because I had a conversation with my husband at that point, and as I said, he's in ecology and conservation, and he said, you can't, you can't study everything. You know, somebody who's interested in this area of sustainability will conflict with somebody who's interested in something else, you know, waste recycling or biodiversity or whatever, and it isn't anyway just about the green side of things, it's also about human rights. And the whole area is so complicated and so full of vested interests. And I thought to myself, how on earth am I going to simplify that, given that I can't possibly be an expert in all of those things, nobody can. And, you know, whatever the banks say, whatever the companies say with all their reporting, they are not experts in every single one of those areas to the extent that you would need to be to solve like that. So I thought, we've got to make this automated, it's got to be independent and it's got to be scalable. So let's boil it down to something that is really, really, really simple to understand. And I thought, every single company – being an economist – every single company has one thing in common, they buy or the sell a product or a service. Simple. If you can then match those goods or services over to sustainable development goals, which is how all of the ESG things are measured, and we all agree on the sustainable development goals, and if we can match it over to all the things that we agree on in the sort of sustainability taxonomies that are beginning to emerge in law, in Europe in particular but elsewhere as well, if we can do that, then we can measure the ESG status of a company. So I went away and I had a look and it turned out that the United Nations had already started that process of mapping products to sustainable development goals and every product in international trade has a code, and so you just match those codes over to sustainable development goals. And every sector has a code, so you match the products into the sector, and every sector has a record within the taxonomies for sustainability for certain types of activity. So that was eighteen months ago. In

November last year we launched our, we called it the Kosmos Working Group, which is a working group of banks, looking at developing a standardised metric for sustainability. We put forward this idea that it was all based on products and services and their matches to the regulatory frameworks that were coming through and sustainable development goals. By December we had our first client and we've now got seventy banks within that framework looking to standardise measurements for sustainability using our product and our product approach. And matching to sustainable development goals.

[00:38:33]

*Right. So you're sort of pioneering an industry standard then, are you?*

Yes, yes. Because my argument is that at the moment, if you look at sustainability, and it's an absolutely massive problem for everybody, we have to make a difference, we have to change things, but it's all too easy to go through that thought process that I've just taken you through and say, it's too difficult, let's put it in the too difficult box, let's focus on one thing. And there was an article in *The Economist* last week – or a special report actually – that did just that, it said it's too difficult, let's put it in the too difficult box, let's measure the things we can measure, let's just look at carbon emissions and get rid of the 'S' and the 'G' and all of the rest is the 'E'. Let's just look at carbon emissions. And it's not enough. If you're going to measure ESG properly you have to look at a completely different way of measuring trade activity. It's almost like back at the beginning of time with economics, or not at the beginning of time, but back at the beginning of measuring national income, you had to measure something, you had to start with something that you knew and that was what the whole process of measuring national income was about in order to understand economic growth. Now we need to understand sustainable economic growth and we need to be able to measure it knowing that we're measuring something meaningful. Well, the products are meaningful. So if we can start to create a standard around that and scale it, then we can make life more complicated afterwards, but having something very, very simple that everybody gets at the beginning and that they understand in a way that they know how they can change their behaviour. So if I give you, let's say, a red flag on something that you're consuming, you'll know that if you



consume a lot of it you're actually damaging the planet. And that's one of the ways that this can work. Equally, if you're financing something where there's a big red flag against it, then you know that you're financing something that will damage the planet so you can start to manage that transition away. And that I think is what we're trying to do and that's what's important.

*Okay. So, but your system is independent and separate from...*

Yeah, yeah.

*... the systems so far. So, that's, are you, how confident can you be that this is going to, will be established as an industry standard?*

[00:41:03]

Only by working with, only by working with the organisations that use it. So you can't ever be confident, but there is, the approach is very general. We are in the process of using satellite data to create a solution whereby we can geolocate climate incidents or human rights incidents and associate them with – or fraud or corruption or terrorism – and associate them with a postcode. So we've actually geolocated, we're doing that type of geospatial analysis right now. So that we're not just reliant on that as a standard but we've also created an automated process. The key thing at the moment is that everything is non-standardised and so all the businesses that are out there selling solutions are selling a non-standard solution that doesn't apply in the same way in the UK as it does in the US as it does in sub-Saharan Africa. Our solution will apply anywhere in the world, and that's the differentiator. So it's always consistent anywhere in the world and that's what's important about it. Will it become an industry standard? Well, the International Chamber of Commerce are working along a similar type of framework to us. The...

*And is that using your technology?*

They can't use our technology. So they can set guidelines but they can't recommend commercial solutions because they are an industry body, but they're using the same

methodology as... they're using not the same methodology but they're suggesting the same structure and providing it, there are people who will provide a consulting solution around that. But what they're saying is, you have to measure your match of your products to sustainable development goals against E, S and G and if you break that down then you can create, then you can create solutions. And what we've done is we've said let's take that framework, let's put it into a technology and that's where we are. So if the ICC guidelines become standard then ours is one of the solutions that's already implemented it.

[00:43:23]

*Oh, okay. So you mentioned your German teacher...*

Yeah.

*... but that was a long time ago. I'm just wondering if there have been key figures, influencers, mentors, people in your life who've nudged you in a certain direction or helped you to achieve your goals and aspirations.*

I think everybody is important, everybody is important. When you're an entrepreneur and when you're founding a business, you are very single-minded in focussing on what you need to focus on, but the support of people around you is absolutely critical. I remember my son saying to me when he was about fifteen, he said, mum, you have the networks you have, you have a resource, not a huge amount of money, but you have resource to be able to do all of this with. And he said, you're well known, you have a media platform for all of this and you have the love and support of your family – he's fifteen at this point – and he said, if you can't do it, who can? And I remember looking up to him, because he's about six foot two and I'm not [laughs], and I remember looking up at him and just saying, thank you, that was inspirational. So my family have been amazing around me. My husband on many, many, many occasions has really made sure that I've stayed on this track even though it might not have been in his best interests at times. And I think professionally I've had so much good advice from so many people and I'll never forget Sir Ken Olisa saying to me, Rebecca, you have to learn to ski. And I looked at him and I said, why on earth do I need to learn to

ski? And he said, because setting up a business is like ski-ing down a black run, you need an absolute focus on where you're going and you mustn't look at the bumps along the way because if you do you'll come off your skis. And one day I will write a book called *Learning to Ski* that's dedicated to that story.

*Yeah. That's very interesting. So yeah, you have to be very focussed, I guess, you have to be very, I mean characteristics of an entrepreneur, you've talked about quite a lot of them already.*

Yeah.

*Yeah.*

I mean I'll tell you another story. When I was a kid we lived in Australia for a while and that was in the days when you could climb Ayers Rock. You can't any more, but you could climb Ayers Rock. And so my father, who is deaf in one ear, went up Ayers Rock, the first bit, which is really steep, on the wrong side of the rope and, because he couldn't hear the people who were talking to him, so he went on the wrong side so that he'd be able to hear them. Up he goes. And my mum and my sister are standing at the bottom. Now, I'm a little bit like a mountain goat as well, I love climbing and I do a lot of high-level walking and everything, it's how I keep fit, I adore it. And I started to climb up and there's this thing on Ayers Rock, or this place, called Chicken Rock, where all the people who think they're going to be able to do it get to Chicken Rock and then chicken out because it's really steep on the way up. My dad was already halfway up there. My mum and my sister are standing at the bottom going, no, Rebecca, stop, stop, stop. And so I chickened out at that point and I regret it to this day. Now, wind forward by twenty years and we're climbing in the Dolomites, my husband and my two boys and myself, and they decide they're going to take mum on a via ferrata, which is a piece of metal pole, wire, attached to the side of a mountain vertically, or almost vertically, that you put your crampon, your carabines and everything and up you go. And I'd never done this before and we were climbing up this huge slope and the two boys were ahead, my husband was behind me, and there's a 2,000 metre gully that you're looking down, okay? So if you've never done this type of thing before it's quite scary. But I see this as kind of my

entrepreneurial journey because I was a chicken when I was twelve. At this point, I've got somebody in front of me who goes, 'Whatever you do, don't look down'. [laughs] So what d'you do? You look down. And I completely froze, completely froze on the mountainside. And my husband just went, 'Oh, don't be so stupid' and went, *urrrhh*, like this, and hoicks me up, just pushed me onto the wire, and off I went. And it was the most fabulous experience because after you've done that you feel like you can do anything. And setting up a business is like that, but you need the people around you saying the right things. So don't chicken out and don't look down.

[laughs]

[00:48:34]

*Okay, that's useful advice for the next generation, I'm sure. So what would you say, looking back, perhaps thinking about changes to society that might have come about as a result of your work?*

Oh, I can remember when I first started working on the Global Entrepreneurship Monitor and at the time what was the Midland Bank used to run a, they used to have regional venture capital funds and their regional venture capital funds were a fund of ten million pounds in each of the UK regions, nations and they were aimed at starting up businesses. And they had a brochure that went with it and the brochure said, in the US, if you want to set up a business there'll be hundreds of people to support you, you'll get the money you need and all the advice you need. If you're in China and you want to set up a business, your family will help, everybody will help and you'll get the thing up and running, you won't be short of people, everyone will put time in. If you're in the UK and you want to start up a business, there will be at least fifty people who will tell you you can't do it and another 350 who will scratch your car when you succeed. And I remember thinking at the time, isn't that a sad story, and one of the American professors at London Business School said to me, until you change the dinner table conversations in British families, you won't get to the point where people want to start up businesses, and particularly young women won't want to start up businesses. And we still see far too few women setting up businesses. There are more of these stories, but the really successful entrepreneurs, even now, are largely men and women tend to drop out of running their businesses along the way

quite easily. So have I personally changed the debate? Absolutely not. But are there signs that a younger generation wants to share childcare responsibilities, wants to share risk, has a slightly more open attitude towards exploring new ideas, wants to do something meaningful as well around sustainability, doesn't necessarily want to work in a large organisation, likes the idea of working in something that's a little bit more risky, absolutely. And those things have changed and they've changed for the better, huge amount better.

*Yeah. So are there any things that you would do differently if you could have your time again?*

Yes. But that's part of learning from failure, isn't it? If I had my time again, what would I do? I would make sure that I was capitalised every single step of the way. Another thing that data tells you, and I hate to say I'm exactly the same, growing a business without decent capitalisation is very, very difficult. And doing it on the basis of an idea and a wing and a prayer is not the best way to go about it. And I would say I've done that too many times and I would say make sure you're properly capitalised and you keep within budgets always. I think choosing the people around you who are going to help you grow is absolutely the way you should go. Sometimes I've chosen people for the wrong reasons and it hasn't worked. And I'd say the biggest thing of all, I've made mistakes because I haven't listened to that little voice, and that little voice, as you know, the one that says, have you got your car keys, as you shut the door, that little voice is really important because it will tell you every single time whether or not you're making the right choices and you have to listen to it, because it might be unpalatable to you yourself at any one point in time to listen to that voice, in fact sometimes it can be really difficult to listen to that voice, but every single day of your entrepreneurial life that voice will call into question, it'll red team, if you like, it'll challenge your thinking and you have to listen to it. And I haven't listened to it all the time and I do listen to it now, because I think that's the critical part because that gives you your sense of direction and your sense of purpose and your sense of meaning in what you're doing as well.

[00:53:23]

*So is that saying trust your instincts, or not?*

It is trust your instincts. I mean everybody... I don't think anybody would say, oh, I just go with the flow and I never listen to what I'm thinking because what I'm thinking isn't worth it, I always listen to other people. I think everybody has that sense of self-determination a little bit. Being an entrepreneur you need that self-determination more than most, you need to be a little bit stubborn, a little bit cussed, a little bit uni-directional, I suppose. But you have a voice inside your head somewhere that will tell you what's going on and it is gut feeling, it is instinct, but it's also your own capability to challenge yourself to learn from yourself and your own mistakes, and that's what you have to listen to. And that's a bit more of a trick to learn, it's a bit more difficult than just going with your instinct because you have to listen and learn and reflect and self-reflect as well.

*And in terms of making money, well, you talked earlier on about what makes people set up businesses, for example, wanting to – I'm trying to remember what the reasons were now – but to innovate was one of them, wasn't it?*

Yeah. Innovate, make a difference, do something different, take a break with the sort of orthodoxy, all of those are reasons. Actually making a profit and making money was possibly the fourth or the fifth ranked item of all of those possibilities. And if you think about it, the reason is this, if you are going to set up a business and that business is going to be successful, just making money won't get you there, it's not enough, because you'll just be thinking about how you accumulate, you won't be thinking about the ideas that have led you to the point where you're able to make money in the first place. You won't be thinking about the innovation, you won't be thinking about why you're different and why people should buy you as an individual. And so you have- and the other thing of course is that you have to eat, sleep, breathe this the whole time. If it's all about money you are eating, sleeping, breathing money, but it isn't enough to sustain you as a human being. Making a difference or having an innovation is important as well because it allows you to believe in the long-term direction of where you're going, it gives you a sense of purpose.

*Yeah. So you're, however, you've now set up Coriolis, it's been going for several years, I guess, so...*

Yeah.

*... are you thinking of selling out and realising your profits or is that not a thing?*

Not at the moment. So I mean I'm still very much in the weeds of Coriolis. I may move myself, I may promote myself, kick myself upstairs at some point because being in a business that is growing means that you need two people who are senior enough, a chief executive and a chairman type role, and I'm both at the moment. So I could well see myself moving into a chairman type role where my job is actually to be that challenge, to be that sort of future thinker, to be that strategy person and challenge the organisation. We aren't quite there yet, I mean Coriolis was set up in 2017 but the first three years of Coriolis were me writing a book, me writing another book, building the reputation of what we were doing, developing a lot of consultancy type products. We had Covid in the middle of that as well, so I mean the first three years of Coriolis I'd say were an unreliable indicator of where we were going to go. We've changed, we've pivoted, we've turned into a company that is focussing on using all of that whole data fabric I've described for sustainability reasons and pivoting totally. It means that it's too early in the journey for me to go right now. So for me to sell out and just go would be lazy and it would defeat why the company is here in the first place. Two, three years' time, maybe. But I think, I think I shall always want to keep my head spinning with something or the other, so even if I did sell out I'd still be doing something exciting in the future.

[00:58:25]

*Okay. So what, yes, talking about the future then, what do you see as the biggest challenges over the next ten years or so in the sort of area where you're working, I guess?*

So the area of trade and the opportunities in trade and trade finance are around digitisation and technology and data and information. So if I said to you that probably around ninety per cent of international trade is physical or manual, okay? So just to give you an example, we signed a contract with a new client, and we are providing an automated service, a digital service to them. They needed a wet signature and they needed a wet signature for the document to be couriered to them. And that wasn't a trade finance arrangement, it was actually their processes required a wet signature. A lot of international trade still requires wet signatures on documents. Now, if you think about that in terms of the complexity of the trade finance deal, yeah, you've got the buyer, you've got the seller, you've got two countries, you've got two banks, you've got an insurance business and another insurance business, and all of them have to put a wet signature on it, then that's going to take weeks to complete. That's why data and analytics and digital solutions in international trade are so important and the work that I've done in that space has enabled the law to change in the UK. I provided a business case to enable digital solutions to become more widespread in international trade. Huge opportunities out there, the market is colossal. We're talking about, you know, a very sizeable chunk of international trade, and I told you that figure earlier, it's massive. That means if it becomes digital there are colossal opportunities out there for all the entrepreneurs out there that think trade's dull. Actually, trade isn't dull. Trade is about political risk, trade is about automated solutions, digital solutions, machine learning, artificial intelligence, all of these things, and it's all in the cyberspace, and ultimately it's about sustainability as well. So, because if we make trade sustainable then all of our economies become sustainable. So trade's the place to be and it's really exciting and technology in trade is only just getting going.

*Mm. Wow, so yeah, what would your advice to young people be then, who might be thinking about this?*

So, if I... advice to a young person who's just thinking about setting up a business or advice to...

*Well, I think taking a step further – well, yeah, that's certainly one thing but you've talked a bit about that already really, but if we think about maybe sixth-formers or people at university who are studying perhaps economics or, I mean should they be*



*doing computing as well, for instance? We haven't really talked about when you first became involved in using IT, but I guess it was when you were still, not even when you were still at school. Or, how important was that?*

So technology-wise, most people when they finish their A levels go off and do a gap year and go and walk through jungles or whatever. I taught myself to type and it was the single most useful thing I ever did because it meant that I was computer literate, keyboard literate and computers were just starting to become mainstream rather than mainframe, just starting to be part of the fabric. You know, by the time I, by the time I finished my degree you couldn't do without a computer and, you know, all the statistical processes and everything were beginning to go on to computers. I mean we are talking about quite a long time ago, so... And mobile phones, I've always been an early adopter, always been an early adopter. But yeah, the single most... I feel like I've never not had computers, so I think that's interesting. And if I were suggesting to somebody doing their A levels right now, what do you do, I'd say always make sure you have a data science component to whatever you're doing. You can do art, you can do biology, you can do chemistry, physics, whatever, but – economics, history – but always make sure that you know a little bit about data science, and that means a little bit of coding, a little bit of Python, a little bit of statistics, and the most useful thing I have ever ever ever had in my portfolio is knowing where to find data. Just, it's one of the things that you have sort of instinctively as an economist, it is actually something that economics tools, economics courses train you for and it's immensely valuable. If you're a data scientist and you can find data, it's a fantastic career.

[01:03:51]

*Yeah. What sort of places do you find data then? It's not exactly floating around in the atmosphere – I suppose it is on the Cloud, but...*

Well, I mean all of the big international organisations have fantastic data, but we're beginning to get satellite data, we're beginning to get traffic data. I mean Google Data is unbelievable. The European Space Agency's Copernicus satellite is fascinating. There's just so much data about human activity that's out there that we can start to look at. You start looking at all the different space agency type satellite

data and what's in all of those data sources and you can solve so many human problems in real time with- I found a data source the other day that is real time measurements of human trafficking, for example, where they're finding incidents geospatially around the world of human trafficking, so you can actually look at satellite data and see where lorries have got people underneath them and things like that. You know, they're actually beginning to be able to do that and the more we know about that type of information the more we can do. So I always say to people, one of the things I've got is a statistical imagination, which sounds like it's a bit dangerous, but data isn't dull any more, data is something that is just deeply fascinating and there are so many wonderful ways of analysing it and making it useful. And I remember right at the very beginning with Delta Economics – the clue's in the name, Delta means change – the one thing I wanted to do was make economics and data useful, and it's still a goal of mine.

*Okay, that's very inspiring, I must say. So, I think that's – is there anything we haven't discussed which you'd really feel might be useful to people looking in the sort of months and years ahead for advice and information about technology?*

No, I don't think so. I mean I think a lot of kids are really switched on. They're much more switched on, but I think making data into something that is, you know, having a passion about data, it doesn't sound like something you'd get very passionate about, but it's, in a world where we have so many problems and in a world where we need to solve so many problems quickly, data and finding out what's going on and diagnosing the problem is now a lot easier than it used to be. And so actually everybody has that capacity to be a diagnostician and to solve at their fingertips. So it's not just about Twitter, it's not just about Instagram, it's not just about social media, it's about how you use all of that information actually to make a difference and that's fantastically exciting.

*And you can do that from the UK, there's no need to go and...*

So I'll end with this quote, okay? Back in 2005 I was at a conference and as – where was the conference – the conference was in Munich and I listened to Ben Verwaayen who was then the chief executive of British Telecom, and he stood up and he said, it

takes a dog, a chair and a computer to participate in the global labour market. The dog to wake you up in the morning, the chair to sit down on, and the computer to connect with the rest of the world. I'd now say it takes a dog, a chair, a computer and an imagination to connect with the world of data. You don't need to move from your armchair, you've got everything at your fingertips. Most of these sources are open source, GitHub and all of the various frameworks, the API frameworks, they're all out there, so much of this information is free. And that's what people are not capturing, they always assume that in order to go into, you know, the type of world that I'm in, you have to pay vast amounts of money for data. You don't. So everybody has the capacity to find a problem, find the data and find the solution, at their computer.

*Well, thank you very much. That truly is inspiring and it's been a great inspiration to hear you talk about your life, Rebecca, so thank you very much indeed.*

Thank you.

[01:08:54 end of recording]