



Paul Excell

Interviewed by

Jane Bird

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Welcome to the Archives of Information Technology, where we capture the past and inspire the future. It's Thursday the 3rd of June 2021, and we're talking on Zoom, as has become customary during the coronavirus pandemic. I'm Jane Bird, and I've been reporting on the IT industry for newspapers such as the Sunday Times and the Financial Times since the early 1980s.

[00:26]

Our contributor today is Paul Excell, an entrepreneur, investor, NED, executive coach, and eminent figure in the telecommunications industry. Paul began his career working in the family food retail business, which he said was a brilliant business training programme that included sales, marketing, finance, energy, and resilience in good and difficult times. After BT sponsored him through university, he became a pioneering Chief Customer Innovation Officer, Group Technology Officer, and Senior Vice-President for Global Services at BT. He launched many of the company's innovative Internet, broadband, mobile and media services, and served on several of the group's global boards. After leaving BT in 2012 Paul founded Excelerate, which provides agile executive services focused on transforming leadership and team performance. In 2016 he founded ScaleUp Group, which has raised more than £30 million to date, and generated some £4 billion in enterprise value.

[01:35]

Paul, welcome. I'm very much looking forward to hearing more about your professional achievements and experiences.

Thank you Jane.

So to start at the beginning. You were born in Ipswich in Suffolk, and are still living in the area, so that will provide a nice continuity. So looking back on those early years and family life, was it a happy time for you? What... How do you remember it now?

Oh, it was a, it was amazingly happy. A tremendous home life. Whilst I was born in Ipswich, that was from the hospital point of view, we lived in a small, tiny village called Bramfield in, in north Suffolk, where my grandfather and then my father had owned the village shop, and ran the village shop. They had also run bakery, fish and chip shop, and so on. And life in the countryside. My mother was a, a daughter of a

tenant farmer. They had moved down from, from Yorkshire just before the war. And so, very much... You know, it was, life was at times tough, as it can be in rural, in the rural times with farming and so on, but I mean it was immensely, immensely happy. I have two brothers, lots of great friends, and the opportunity to, to live and work in a, in a village environment where there was a real sense, and still is frankly, of community. You felt part of something, part of, not only the family, my own obviously direct blood family, but also the family of the village itself. So it was, it was a wonderful place to, to grow up and, and frankly be formed, and, I'm often still back there visiting friends, old friends, and indeed my family who are, who are still, my brothers who are still in the area, and, my parents have departed now but they are, they're buried in the churchyard there. So...

[03:43]

So what about your education? You were at state schools I think.

That's right. So, I was lucky enough to be, so we have a primary school, still do, it still does in the village, and then I went to a middle school, and then I went to high school at Bungay, which is just on the Norfolk-Suffolk border, where I was, as I was coming up... In those days it was something called O Levels, which was kind of a precursor to, to GCSEs for, for younger people listening in to this. And, then, at that stage I had to make kind of, decision, and my parents were very keen for me to, to basically get a job. I think, comments were that, that it would be, having looked after me for, for sixteen years at home, now the time was for me to, to go out and, and get a job. So, I was very fortunate to have what was the GPO at the time, now, you would know it as the, the Post Office, in those days it was known as the General Post Office, the, the letters and the telephones were one big organisation, part of the Government. And they had moved their research centre out of Dollis Hill in north London, to Suffolk, and I managed to get an apprenticeship there. So, yeah, my education, again I had some fantastic teachers. And this is where I first got my love for engineering, through notable teachers. I would mention Dr Dave Williams. He's now, lives in Canada, we speak with him on a regular basis still to this day. He identified that these things called computers were going to be important, and he, he arranged the very first computer science course to, to come to the school and give us an opportunity to find out and learn about computers. Fascinating to me now, because we, we had to

drive... In order to do some coding in those days, we had to drive another, further 25 miles, nearly 30 miles north to Norwich. Norwich City College had one of the only computers in the area. So the only time I could get coding time to, to actually go coding in BASIC and Pascal [laughs] at the time to get my coursework done and, so on, was to drive all that way. I mean, it's quite amazing when you think in my lifetime how computers, we're on Zoom here, and I'm regularly, like you I'm sure, with people all around the world, and, interacting and so on, and just to think that you had to physically drive to be close to a, to a mainframe. And then I'd also mention maths teachers. Mr May, Mr Jenner, they were just, the, the fascination of how you could use maths, and you started to see maths as, as beautiful patterns and shapes and... And then, just to bring it all together, a remarkable physics teacher called Mr Rayner. He just brought to life physics and what you could do with it, and knowledge of, understanding fundamental physics laws, how you could use that for engineering to build things, construct things for the, for the common good. So, I was incredibly lucky to have a fantastic high school teacher in particular. I mean all the teachers, there are so many remarkable ones. And I think I would also mention, whilst, since we're on high school, history too. It's kind of, interesting, whilst engineering is something I'm passionate about, just understanding history, where we've come from, learning from the past but looking always to the future and to make a better future, two, two remarkable history teachers, Mr Eade and Mr Taylor, who really brought, you know, history to life, how fascinating it was. Because we're all living and making history, so I, I always think that's kind of, a fascinating thing about us as, as beings as it were. Anyway.

[07:51]

So, OK, so then you, you took the apprenticeship with BT, and that was your first job I suppose, or, did you see yourself as still being really a student?

No no no, it was very much me, that was my first job. It's interesting, I've just been doing some, you know, putting together of my own archive files in preparation for this. I found my first contract. My first contract, my weekly salary was 28 pounds 14 pence a week. [laughs] Which my parents said, happily said, 'Well, fifteen of that will be for your keep, and the rest is for you to, to run your small,' I had a small moped there to get to, the research centre was 25 miles away from my home, so I had

a sort of, 50-mile commute each day. [laughs] But yes, that was very much my, my first, my first job, and very much considered that to be so. They were... I was very fortunate to have, part of that, the opportunity to go Suffolk College to do sort of, technical training, to supplement what I was learning, learning on the job, and so on. And I always had a desire and want to go to university. At sixteen my teachers were very keen that I did A Levels and go on to university. In those days, unlike perhaps today where, where perhaps a fair majority of people go on to university, in those days it was a relatively smaller, much smaller percentage, I'm not, I couldn't quote the exact number. But they were very keen I did A Levels, but my parents were also keen for me to get out and get a job and start earning. But I never lost the desire and want to go and, and read engineering at university. So, I looked to do that in a different route, which is indeed what I achieved, so...

[09:40]

Yes. So, the apprenticeship was '79, '78-'79.

Yes.

Then you, then you did actually go to York University to study electrical engineering, didn't you?

Yes.

So, was that as soon as you had finished the apprenticeship then?

The apprenticeship was, was three years. I graduated as a fully-qualified technician in 1981, and then I had a year as a qualified technician, was known as a Technician 2A in the grading system at the GPO then, working on submarine, digital submarine systems, submarine cable I should say, as opposed to submarines the boats. So we were working on some fascinating new logic circuits, very fast, very high-speed for the new optical fibre cable systems that were just coming around. Previously cables had been metallic coaxial. There was also some research going on on waveguides. And this is another thing that kind of, gave me this, this amazing passion around engineering, because, we were, at the research centre at the time Dr John Midwinter,

Peter, Dr Peter Cochrane, Professor Peter Cochrane, they were fundamentally doing research into the, to optical fibres, or optical waveguides. Again as we know them now, the Internet wouldn't have been happening without the research that these colleagues were, or these people at the top of their organisations, were performing. And to be a small part of that, in this case an apprentice and then a technician, helping build the, the test grids, doing the testing, in a lab, was, you know, was just incredible. I mean what an opportunity. I was, felt blessed every day to go and work with these, these people. And we really knew that we were, we were fundamentally changing the face of telecommunications and so on.

[11:42]

So the, the apprenticeship was three years; then I had one year as a technician working, as I say, on the optical fibre submarine cables. And then the university, university time, was September or October '82, and I graduated in the summer of '85. I did a couple of BT's student projects each summer. One was a simulation on new local area network, Token Ring, the local area network technology, so that was very interesting, to do sort of, customer technology, how within, building new, new sort of Token Ring local area network architecture and so on. And then, during the other summer I worked in the Satellite Directorate at BT International. And, in order to make sure that... Because satellite dishes are looking for tiny, tiny signals, so the, the clichés, you know, if you put a, a heater on, on Mars or the Moon, and you're trying to detect the heat coming from it, that's the sort of, the weakness of the signal coming through space. So, anything, any interference locally from, say, microwave systems in, on the ground, would be very damaging, you wouldn't be able to hear the, the weak signals you're trying to save from the satellite. So, we, I created the software which would plot between any two points the terrain using OS data, Ordnance Survey data. And you could then look at peaks. Because if a radio signal is... I'm not sure if you, [laughs] you want to go into this detail, but I found it fascinating. If radio signals from, say, a domestic microwave system that were being used at the time hit a peak, you could get something called peak diffraction. Peak diffraction would pour radio frequency energy into the, the large dishes, anybody who knows the large satellite dishes, that people will be familiar with if they've ever been down to Goonhilly in Cornwall, or other places. That would completely wipe out the signal that you're trying to receive from the satellite. So, in order to plan where you place satellite stations, it's a, it's a very... And at the time we were starting to build, or building in

London, at the London Teleport, for TV and other things, bits and pieces. And that's really how I got into working on satellites in that early part of my career.

[14:20]

OK. So then, after that, you came back to BT full-time.

Yes.

And, I guess you saw, did you, then, sort of see, did you anticipate that you were going to stay all that time and work your way up the, up the management hierarchy?

I... No, I mean not in terms of thinking how long it might, might be that length of period of time. I've always taken the, the view that you want to do things that, you know, are impactful, and, you know, making a difference. And... And, I have a philosophy of lifelong learning. I haven't stopped now. As you will see from later, well next week I'm doing a, a security certification, because I want to get my information systems security certifications back, or, back up to a level where they're appropriately certified. Last year I accredited as an executive coach, just again to push myself to learn. I'm just, I just, I think just curiosity and staying curious is just a, the most important, one of the most important traits and characteristics people can have, and I'm just, I'm just generally curious, not nosy, on people, and seeing, you know, what I can learn, how it works, and all that kind of, bits and pieces. But to, not do the politician and avoid the, avoid the answer, I had no idea that I would stay for that period of time. What I did know, that I did want to kind of carry on developing and growing and so on. So, when I first went back, I was very interested, into satellites. I had been fascinated from the work I was doing with the satellite director, they invited me back. So I went to work there on something called SATS training. SATS training was a very new service in those days. We were doing what was considered very high bit rate services, particularly globally, between 2 and 8 megabits up to 34 megabits for large customers, like Texas Instruments was one of our customers. I did a gig for the American Embassy. I've even got a picture of the satellite dish on my wall here. Which was my first really big project as a executive engineer. It was notable because the, the ambassador at the time decided to pull the whole project forward by several, many many many weeks, I can't remember how

many, it's probably something like nine or ten weeks, because Nancy Reagan, who was the First Lady at the time, was coming over to one of the royal weddings, and so, we had to pull it forward because the ambassador wanted to make a big splash of her being the first person to use the, first person to use the communications link. So we, it was quite a challenge to bring all this thing forward, but I am happy to say we did it. And, no one will ever know, but we did have several back-up in case the system wasn't working on the day. Because we had to do all sorts of things on coding, and, you can imagine, even in those days, the cyber security that we had to go through to, on a US State Department type link. But we got it working, it worked perfectly, and she was able to tell the then President Reagan all about her, her day in Westminster Abbey and so on.

[18:03]

So... OK, so, can you give us some more highlights from your career at BT? We're looking back over the time you were there.

Yeah, sure. I mean, I suppose, if we're going to do it, I suppose it's easier to do it chronologically. Then I moved into standards. So I was, I was setting standards for satellite and submarine cable systems. So, internationally, phone calls, they don't work just by magic; you obviously have to do a lot of international engineering, both in terms of setting them up, testing them, making them work in the first place. Delighted to work on the first transatlantic optical fibre cable team on the testing and set-up processes. That was a, that was something called Transatlantic Cable No. 8, TAT-8 as we would call it. That was, the main owners of that were, three-way, were BT, KDD from Japan, and AT&T from the States. We had various landing points and so on. We had an international consortium of engineers testing and they set that up. And then I was also responsible, and led the UK, on behalf of both the UK and BT, from an industry point of view, setting up the standards for all these new digital circuits and voice circuits work.

[19:22]

I then got myself promoted into something called specialised networks, this was around, in the late Eighties, early Nineties. We had suddenly realised and identified, there was things called data, obviously we had realised there was data, but, but we wanted to, think that customers wanted more and more direct data services for their,

the burgeoning IT and Internet services that they were using. So, we had worked with Bellcore and some colleagues in the US to come, to think about launching a service called Switched Multi-Megabit Data Service. That was the UK's first broadband service. Delighted to say we trialled it with UCL using something called DQDB, dual-bus technology, metropolitan area network technology. We were the first, I think in Europe, certainly in the UK, to, to both pilot it with, with UCL. I remember, [laughs] one thing that's kind of made me grin thinking about this, was, we, we had a slight problem with the, with the project plan, a slight delay, because we actually had some rat infestations in the fibre optic cable ducts going into one of the buildings in UCL, which is kind of like, one of these classic things where you've got all this high-tech engineering and you're, you're actually, you're put back by some very practical, shall we say, you know, pests quite literally in this case. But yeah, we, we hit all our timescales on that. We launched on time. And a number of very very high-profile government and other public customers went on to that network. And it was the first broadband service. As I say, I was very pleased, honoured and delighted when I think back to it. 1990 we were doing 25 megabits to customers' premises, which, you know, was clearly unheard of, certainly from a customer. We were doing things in the labs clearly much higher than that, but to have fibre to the premise and so on. So, that was great.

[21:20]

We moved on, we continued to sort of do the, the data stuff. That then said to me, look, we need to be getting into, to broadband and so on, and I suppose the, the big moments for me were then launching other high-bit rate services. We, we launched something called CellStream, which was a, ATM, Asynchronous Transfer Mode, packet-based technology, which all led up to moving a massive, a massive investment plan where I went to the BT board and said, 'Look, I'm very very sorry.' I didn't quite phrase it like this, because it would be probably considered quite disrespectful, basically because I was a, a relatively tender age in those days [laughs], but saying, 'Look, we can't be a phone company any more; need to be an Internet company.' And so...

[22:13]

So when... So, would we... We're talking early 1990s, mid-Nineties?

This was mid-Nineties. This would be, 1997 we launched CellStream, that was award-winning. And then, yeah, the sort of, 1990, 2000, we, we went, with the support of the then CEO of BT, Sir Peter Bonfield, who had, who may well be in the archives, he certainly should be, I mean he was a, a very notable, *is* a very notable, still, still see him on a regular basis, he was at ICL and Fujitsu, and was CEO at BT for a number of years, and remains very active. He's, he's on the board at Darktrace for example. Recently had a very successful IPO on the London Stock Exchange, and very active in the tech world. But he, he had, he had also seen from his travels, like, I mean I was travelling a lot, working with various teams, and he had seen this, this Internet phenomenon, and he, he agreed that we should get on it. And we, we very much did. So we then, the next few years was very much leading the efforts in, in transforming from a telephone network with what we in the trade called narrow band, 64 kilobit services for, obviously the, you know, the 100 years BT or, Post Office Telecommunications had been based on our fixed line telephone, and to sort of move, move us away from that towards where you are using packet-based technologies to deliver all your services. And that meant for a fundamental rearchitecting of the network, and, and of course delivering at, you know, breakneck speeds. So particular highlights there I think were when we, we had decided to do it within, within eighteen months we had nearly ten million, fifteen million people on the platform. They could access the Internet through a number of, through a number of ways, whether it was, seems very archaic now, but dial IP, but pushing the speeds env, speed envelopes there, through to broadband, very broadband, high [unclear] access. I mentioned those before. And leading the teams to do all that sort of fundamental rearchitecting and so on.

[24:41]

We also put in, recognising how, how IP was growing, the Internet traffic was growing, IP traffic was growing, we put a massive, a UK backbone in, and we named it Colossus. This was as, as a tribute really to my forebears, the GPO engineers at Dollis Hill, Tommy Flowers for example, and his team, and all those brilliant engineers, men and women there, who had built essentially the first computer and been very much instrumental in shortening the war by shortening the time that it took to decode some of the Nazi crypts in Bletchley. Also, as a small aside, I'm delighted to say I actually attended Bletchley Park to do some of my training when I was a technician, and in fact the first drink, alcoholic pint of beer I ever had, was on my

eighteenth birthday, and it was in the bar which was in the basement of the very famous manor house at Bletchley Park. And I had a card to prove I was eighteen years old. It was a Monday I remember, and it was on the first week of a three-week training course. So I, I actually went down there and had a pint, and, obviously, said, I think, a big thank you and a cheers to Alan Turing and the men and the women that, that were working there, and did such an incredible, inspirational job.

[26:16]

Yes. Yes, I did... You were aware, then, I mean Bletchley has become much better known in recent years, hasn't it, but at that time it was rather more of a secret I think, the importance that it had, the role it had played in the war.

Yah. I mean it, it's great to see, and there are some, some great things. Jacqui Garrad at the National Computing Museum, and Professor Sue Black, did some great work highlighting the importance of, of Bletchley. Obviously some of the, the recent films, famous film with Benedict Cumberbatch and so on, highlighted how important and instrumental that work was, and having Alan Turing on the new £50 note, and those kinds of things, just, just so important, because that was such an incredible war effort. I was fortunate enough to meet someone who had worked there who was living in a, in a retirement home here in, here in Melton, and you know, just the, the work that they did of course was also, was, she was a bit like the Keira Knightley character in, you know, she was like, super smart, but she was never ever, never, she swore an oath never to talk about it, and, even, even then, this was a few years back, she wouldn't, she wouldn't speak about, in any detail, of what she was talking about, because she, she felt duly privileged, or duly obliged, because of what she had signed up to, to keep it all secret. So... But fascinating, and, and brilliant.

[28:00]

So yeah, that, when you work, certainly when I was at BT, you kind of knew you had come from an organisation which had that kind of historical background, the importance to the, the importance to the country and, and so on. In fact, I think my first senior retirement do that I attended, me not retiring, this was one of our senior, very senior directors, and, I remember to this day, obviously, because I'm about to repeat it, what he said. He said, 'Look, I've, my watch is, my watch is, is done now. I've looked after the network. It's, it's for you, you youngsters, to, you men and

women in the room, look after it well, it's an important national asset. You have to look after our customers, you have to look after the asset, you have to look after your people.' Very inspiring when you think about it from that point of view.

[28:58]

So, you came, you became in the end at BT, as I mentioned at the beginning, Chief Customer Innovation Officer. You were obviously looking a lot at the user experience. That was something that was very close to your heart, was it, by that stage?

Yah. So... I mean I have this real thing that, I think coming right back from, from the days working in Mum and Dad's shop, the customer is, is all, you know. As Dad would always say, 'Look after the customer, they're the ones paying your salary.' It's a bit of a cliché, but of course, he realised that was... 'And you have to do it every day, it's kind of an executional thing, it's an experiencing. Every time they walk in the, into the shop, son, make sure they walk out happy, and they've got everything they need. And you've found out... Be curious about finding out whether you can help them some more,' and so on. He never saw it as selling; I've never seen sales as sales. I see sales as helping. He said, 'Never sell anything to somebody if they don't need it. Find out if they really need it. Be curious, be empathetic, understand, and then, make sure you meet their needs. And if you can exceed their needs, you know, constantly think about how you sort of innovate to go forward.' And I suppose I took that throughout my career. Because I started in the research centre, and then I, I was lucky enough then to work with our global research assets of BT at the time, labs all around the world, our university programme with everybody from Monash in Australia through to MIT in the, in Boston. We were leveraging this incredible innovation ecosystem that BT had, in order to see what we could do to innovate. I mean, if you don't innovate, you slowly die. It's absolutely true in any business. So, you have to continually innovate. And so we wanted to bring that not just only to, to our own business, and innovate, not, you know, moving from a phone company to a broadband company, or a broadband company to a, you know, faster broadband company, to a, to a, you know, a media company, a mobile company, and so on and so forth. Constantly thinking about the customer experience, constantly thinking about, you know, how that worked, how it all integrated together. Well of course

then, taking that to the next step, which had never been really done before, as far as we could see, which was working with our, our direct end customers. So there I was very much part of the BT Global Services department which looked after our major corporate clients, you know, the top FTSE, top 500 clients, were pretty much all one way or the other on our list. And so, working with the, the CXOs of very large corporate customers and government bodies in order to find things that that could work for them, whether they be a bank, whether they be a government department, whether they be a energy exploration company, and so on and so forth.

[32:14]

So, what about the overseas, the international aspect of all this then? Because, BT, British Telecom, we think of it very much being a UK company. To what extent did you feel that you were operating as, on a sort of global level? You've talked about the world quite a lot. Did you get to travel, did you have an international perspective, did BT feel like a global company?

Oh, absolutely. I, when I was talking about the satellite departments and the submarine cables, of course, that was my first job and very much gave me, you know, a desire and passion to, to the challenges of international communications, which are literally both figurately and, and, yeah well literally and figuratively so to speak. So, that was very much part of something called, well, the organisation was known as BTI, BT International there. I worked for most of my, a lot of my executive career for BT Global Services, and I had a period of time as Vice-President, Senior Vice-President, running a large global organisation with customers in 170 countries. And often a month could be a week in Asia; fly back; a week in, somewhere in the EMEA region; fly back; a week in the Americas somewhere; fly back; a week in the UK. And then, then some, often repeat, repeat cycle.

[33:51]

I mean, interestingly enough, I did, even in those days, work very much closely with, on the early pioneerings of video conferencing technology. In fact I, I worked on some very early video codecs when I was an apprentice technician as part of my, part of training rotations. So, very much saw the need to help save time and save money, and obviously save, more to the point, greenhouse gases these days, in, in having and working on the precursors to the technology we're using now in order to, you know,

enable people to get together without necessarily having to jump on the, jump on an aeroplane and so on. So yeah, I mean I, I also found that invigorating, because you, you got to see, meet different cultures, and I told you about my [laughs] rampant, as it was, curiosity, and understanding how they worked. And then, looking at and understanding how a culture would, would address a particular issue, or, how teams work together, or, how diverse teams work together, pulling together, you know, diversity in all its forms from, from gender to, to background, to race, to, to so on. To really crack innovation problems, or execute and deliver absolutely outstanding customer experience, whilst of course helping develop people over time. I'm delighted that a number of the people that worked for me kind of went on to have very, have gone on, are having, exceptionally, you know, successful careers both within BT and in other places. Because that's all part of the leadership thing, to sort of, give back and help others around you, you know, thrive, and so on. So, yeah, I mean, the global thing was, was fascinating, and...

You weren't seduced by the idea of earning a lot more money in America for example?

[pause] I had... I had a few offers, [laughs] let me just say that, but, at the time, the way we, we worked it, I was travelling a lot, our children were, were growing, were growing up. And so, I would make it home for, for weekends. I had seen that disruption to schooling can be very detrimental, so, having, you know, had the joy and the pleasure and the, you know, of, and blessing of two children, wanted to give them every opportunity not to be kind of, moved around and so on. And, I'm not making judgement. That was what worked for us; we sat down and had a very long session about what we should do. For some people it can work where they move the family and it's also great for the children. So, I make, every decision I think is, is personalised particularly to them. So... My wife was also a teacher, so, you know, it would mean her moving, having to have disruption to her career, and I, I didn't want that, or we didn't want that. I mean, we're a family unit, we work that very much as a team issue too.

[37:17]

OK. So, just to finish up on your, on your professional life then. So, you did eventually leave BT, in 2012 I think.

Yes.

And that was to, to set up Excelerate, wasn't it.

Yes.

So what was the thinking behind that? You felt, right, now I want to become an entrepreneur myself, or...?

Yes. Well, I had been delighted to work within BT on entrepreneurial, with entrepreneurs, and entrepreneurs directly, and I started off very much I would say as an entrepreneur, and I'll go back to, to my family roots, you know, working in a, in a family shop from, from whenever I can remember. And it wasn't, well it wasn't child labour or anything. I did it because that was just what you did. And, and it was, it was great in, in hindsight, of all the stuff you learn. And you learn how to do enough sales and understand cashflow almost minute by minute, certainly hour by hour, because you knew how many sales you had to do in order to pay cash on demand on the Friday for the wholesaler was bringing, you know, your re-stock and your daily greengrocery, which, again, you paid cash on demand. Because... So, all of that stuff was great, because it, it then gives you a great grounding for when you're working with, you know, entrepreneurs and entrepreneurs throughout your career, and indeed entrepreneurs today. When I was at BT we were able to create innovation, be able to create innovation funds to invest in, so corporate innovation funds to invest in what we saw as great entrepreneurs, to give them opportunity to help us grow, help them grow, and also for us to use, frankly, in our network and to do the new innovative services. And then, in my travels of going all around the world, I met some incredibly innovative people, and working with entrepreneurs is very stimulating, very much does mean that you kind of, throw back the duvet every morning and think, what are we going to do this morning sort of thing, and how we're changing the world. We very much have this, this cause to, to do something, improve customer experience.

You know, today with impact technology, it's so important for us to, to address the climate issues for example, and so on and so forth.

[39:44]

So, as I was coming towards the end on my BT career, having been there for, obviously for a good period of time, and hats off to everybody at BT and BT as an organisation, absolutely fantastic, I mean, put me through two degrees, an incredible career, in return I like to think I've developed a, a hell of a lot of their people, and people over... and delivered billions in terms of revenues for, for shareholders and stakeholders and so on, but, you know, very much look back to my BT days with fondness. But, yes, in answer to your question about, a few minutes back, very much looking into, wanting to move into working directly with entrepreneurs, and also doing some more coaching with entrepreneurs and people with an interneural mindset. I mean, so I'd differentiate... You know, I thought, I always thought, whilst I was obviously part of a big, large corporate and was able to, to scale things because of the size of the organisation and the resources that it had, relatively, in a different way, but if you have an entrepreneurial mindset around, fixated around the customers and understanding costs and, with the energy and the drive to sort of execute and make things happen, then I think that works in any organisation. So I, I'm, you know, very happy to coach, and do coach, entrepreneurial people, men and women, who work in large companies as well as start-up entrepreneurs and scale-up entrepreneurs, who are working in, you know, a financial point of view what seem much smaller companies, but, you know, are really having a, a massive, dramatic impact on, on the UK economy. 33,000 UK scale-ups add something like 1.2 trillion UK pounds, they generate millions of jobs, they're growing at, by definition of a scale-up, at 20, 30 per cent and more a year. So they are fundamental, fundamental to UK Plc. They're driving forward in terms of opportunities, growth. And all that drives to, you know, my vision of life, wanting to get back and helping people grow themselves, grow teams, and grow more opportunity. When you come from a rural background, the opportunities become smaller and smaller, and you want to have men and women from all backgrounds, absolutely everybody, the opportunity to, to be part of this, you know, great tech revolution that is going on, or continuing to go on, it won't, you know, it's a constant thing. And, it ought to be available to everybody, whether you live in a, an estate in Manchester, Cardiff, Belfast, Glasgow, or whether you, whether you live in the wilds of Gloucestershire, Suffolk, Cornwall, Yorkshire.

[43:00]

So, yes I mean, Excelerate was all about helping, you know, customer, clients, whether they're leaders or teams, grow. That's why I added this sort of, the more formal coaching accreditation to, to my portfolio a couple of years back, so, so I've got that as an additional. And I went through an Agile Leadership certification again, because Agile is very much, you know, part of this philosophy, and, and so on, and as I said, I'm very much, passionate in believing in lifelong learning, because I think that's, that's a route... I think, when you, when you hire somebody, you say, you look at them and you say, you ask questions around her or his, you know, attitude towards the job, attitude to learning; are they curious, have they got, you know, that, that passion. But more and more you're seeing the need for, as well as all those other kind of hard skills, the, the importance of empathy, the importance of creating teams where, it's psychologically safe to raise issue where, you know, positive, robust challenge is good, but it's done in a way that is respectful to, to the human being, and respectful to the diversity and inclusivity and so on. Those are the teams, when you look at them, that are, you know, are really, really throbbing, and really growing, and, and really, really kind of pumping it out there, sort of stuff. And, and so on. So...

[44:39]

I also took the opportunity to take a little bit of time thinking about various bits and pieces. I developed my, my what are called 7Cs model of success. When I look at successful teams in all my career, they all seem to have sort of, seven, seven type of principles. I'm the process of writing a book on this. I've already written a chapter in a book that's been published, but I thought I might extend it. If I don't, I'll blog it, and it'll... And... Would it be interesting to find out what you think the seven Cs are?

No idea.

No idea. OK.

Do you mean Cs as in, as in, I don't know, communication, or...

Yeah, no...

...or customer...

Seven Cs. So... So I... Yes, go ahead. Sorry, go ahead.

Well I, I don't know. I would say, yeah, communicate, customer awareness maybe. I don't know, you tell me.

No no, I mean, I'm...

We could be here all day,

Great, you've got... Yes, so, it's the kind of like, the, the Stephen Covey idea. So I thought, 7Cs. I mean first... I mean, these are in no particular order, and sometimes, at any particular time in a particular team if you would do the, the seven sort of, well, spider web, you'd see how people and teams change. But first of all, great teams of great people seem to have a cause. So, you know, it's, it's, aka purpose these days, but, people have got to buy... I mean, purpose doesn't start with c, so, I went, I went with cause. That was the thing. So, they are looking to, you know, change the world, make money, drive positive change. Whatever it might be, they are inculcated, they have a cause, and the team is inculcated with said cause. That's what gets them up in the morning; that's what drives them; that's what keeps them going. If I draw, using a marathon analogy as of one five of those charity, slowly I would, I would, I would add, because of my size, I'm, I'm built for more rugby and, and those sorts of things, rather than, than long-distance running, but nevertheless, it's that thing that gets you through at eighteen miles on the Isle of Dogs, when you're cold, you're wet, there's no spectators cheering you on, your legs are chaffing, you've got blisters on our feet, and, [laughs] so on. If you have that cause, and you know this is for, for what it is, that keeps you going. They are courageous. You will get knocked down in life. I have been many many times, and it's just always, as the cliché goes, about, are you willing to kind of, get up? But it's also about, courage to sometimes stand up and say, this is right, this is wrong, whatever it might be. They're very committed, and this is, this is coming back to this idea of, you know, energy and execution and a commitment to the, to the cause. Innovation at its simplest term always I think equals an idea which is very easy. It's very easy to get ideas, but it's very hard to execute

them. Great entrepreneurs, I think it's, it's a real... I think we always neglect, because we look at people who are creative and come up with all these ideas and say, 'Aren't these fantastic people,' and that's not to be you know. A world without creativity, particularly in the arts, would be very dull and not a world that I particularly want to exist in, but..

So creative is number four, is it?

No, I, I haven't done creative. I just, I just ...

OK, let's go, let's not spend too long on this, Paul, because there's... So we've got, we've got cause, courage, commitment...

Cause, courage, commitment; communication you already got; curiosity I've already, I've already hit on; customer, you, you already hit on. And the other one was collaboration. So, collaboration is, essential. No one person, no one team can do anything, however big you are these days. So you have to find a way of collaborating together and so on. So, so they're the seven Cs.

So you are developing all these as part of your activities with Excelebrate, are you?

Yeah, that's, that's part of a, a model that I use working with, with clients, leadership clients, Agile leaders, ScaleUp leaders, and so on.

[48:59]

And then you've got ScaleUp Group, which you set up in 2016, which is, what, a sort of, raising venture funding for, for start-ups by the sound of it.

Yeah. So, so ScaleUp Group, I should say was, was really founded by someone who I know you've already interviewed, John, John... [laughs] John O'Connell, sorry. So, so John O'Connell, who is the Executive Chair of Scale-Up Group, a very successful entrepreneur very much in his own right, started Staffware, took that from nothing to, I think it was a, 250 million, certainly over 200 million float on IPO, and so on. And, as part of, a number of meetings, a few of us were sitting around, or, or John's

colleagues, John's connections, and said, look... When... If I take one quick step back, just to give it context. 2012 I think it was, amazing woman, Sherry Coutu, and, I think in conjunction with Reid Hoffman of LinkedIn fame, had looked at the whole idea that the scale-ups, you know, are where success, real success comes from. If UK is very successful at starting up, it's got millions of start-ups, but it hadn't been, at that time, particularly successful at scaling up. So, Sherry formed something called ScaleUp Institute, which now every year produces a report you might be familiar with, and that basically codified the importance of scale-ups to the economy in terms of global value, the trillions of global value added, the great jobs, the, the impact, positive impact on diversity scale-ups can have for economy and so on. And they then looked at what, what barriers do scale-ups have to, to growing fast? And, they found five or six infrastructure and others being some of them, but the main, the top, top three were always, and still continue to be today, access to patient capital funding, growth funding, on terms and conditions that make sense for everyone, which are fair, reasonable to everybody involved in that ecosystem. And then, access to leadership, and particularly leadership skills. And then finally, access to new markets, both in the UK and in, and globally. So we simply set up, in 2015, '16, we set up ScaleUp Group, as a bunch of people who had successfully grown companies, to help scale-ups scale up. And so that's what ScaleUp Group does. There's a membership now, when you look at the membership, they have taken start-ups and scale-ups and delivered over 4 billion in terms of added enterprise value to the valuations of the companies, in terms of when they've been sold, or floated on AIM, or floated on NASDAQ and so on.

[52:13]

So what we do is, we offer to our clients, look, you know, you're a start-up, successful start-up, starting to scale up, you're a scale-up looking to get from ten to 100, or you're a, you're a start-up looking to get from 3 million, 5 million, up to 20, and then up to 100 million. We've got some people here who, who have done this before. They're happy to essentially guide you on the way. If you think of a, I don't know, somebody climbing Everest or a mountain, you want to take a woman who's kind of done it before, has got the skills, knows what it's like, not just on the good sunny days, but when it's, when it's difficult, when the weather's coming in, and so on and so forth. So that's a concept of Scale-Up Group. We offer support, advice.

[52:59]

And then I suppose the final, other, thing is, all the members are given the opportunity to invest in the companies themselves. So, normally, we find from our clients, to date we, most of them, the vast majority of members take the opportunity, it's a personal decision, we don't give any financial advice, very very important for me to say that, but a personal decision, members have the opportunity to also personally invest in, in our clients. So that's a very [unclear].

[53:28]

So are... So, when you say 'our members' then, so, so you're, you don't have... What is a member then? It's a... So it's more like a club, or... What is it, is it a company, or...?

It is a company, but I'd say, it's kind of a network of, of, you know, highly successful entrepreneurs. There is, there are only a few join from time to time, it's obviously by invitation only to, to join the network, with the opportunity to, you know, having a massive impact. And we, we were really, we kind of almost formed as, as a, in my head at least, as a little bit of a... And John, John had a number of investing activities and ongoing activities. I, I was particularly, I think, cheesed-off at the time. There was a lot of press in the mid, middle of the last decade, saying that, how the UK wasn't producing any unicorns, and so on, which, first of all complete nonsense, because we were; and secondly, one of the, you know, using Shery's, Sherry and the Scale-Up Institute's work, we could see that what I suppose was intuitively obvious, the three things that, that scale-ups need, is, which they might not have, is, those three things: access to growth capital, access to, you know, leadership and skills, and access to markets. All of which, if you have a network of people who have done this several times before, many times before, and successfully going over 4 billion, they have those, access to, to those sorts of networks, to help companies grow.

[55:13]

OK. So... And, and presumably, this is a way for you to get rich too.

[pause] That's not...

Have you... I mean, have you made a lot of the 4 billion yourself?

[laughs] Me, no. I, I'd say I, I'm, I'm one of the smaller contributors. Unless, I suppose, you took on board the amount of money that, that obviously large companies have made from services we've launched over, over the years. No, I think, if you look at some of the, some of my colleagues on the board, you look at someone like Alastair Bathgate, who's a member, he took Blue Prism from a two-person organisation to, you know, a, a billion listing on, on AIM. Mike Tobin, probably one of our most, other most famous and notable members, took Telecity that was in trouble I think with a market cap SUB 10 million, and when he left it, it was a market cap of, you know, over, well over a billion pounds. So, you know, there's that calibre of, of people. As I say, John himself took a company from, from literally nothing to over 200 million. By the time you aggregate all our expertise up... And then, and there's probably two sets of, there's entrepreneurs that have done it within corporates, and entrepreneurs who have done it, I suppose in, in the sort of, in the other environment, and a lovely hybrid of, of the two. So there's a rich cocktail of, of skills, of women and men who have, who have been there, seen it, done it. And, whilst of course we are for profit, and we believe in for profit, and so on, I think the fundamental motivation, for me anyway, I can only speak for myself, and I think a lot of the members, is, we want to see UK scale-ups do well. We, we... It's... You know, it's not philanthropy in, in its truest sense of the word, because most of us do philanthropy in other ways, through Worshipful Company of Information Technologists, or, or other charitable things that we're involved in. One of our members, Guy Rigby, for example, is rowing... If he's successful, I'm sorry, I'm going to say *when* he's successful, later this year or early next year, he's, he's rowing across the Atlantic for, you know, charitable causes, you'll see some incredible things that, that ScaleUp members do in their, in their personal lives, to drive philanthropy. But the primary function of ScaleUp was to... So our strapline is to grow global champions. Back in 2015, when we set it up, we, we wanted to, to give UK entrepreneurs the opportunity to become a global champion should they wish, and by offering our services and networks and connections to, to enable that to happen.

[58:08]

Right. So... But I mean, I suppose there's always the possibility of you creating significant wealth for yourself, in a way that you never could have done working for

corporations like BT, or is that, was that never really particularly what interested you?

Not in terms of the Scale-Up Group. Because the idea, when we invest in a company, is to take up a, a relatively small amount of the equity, to demonstrate that we are committed, as individuals and, you know, because it's not as an organisation. Clearly the way to make money, if you're looking to make a dramatic amount, is to create a, a very successful start-up, scale it up, and, and to grow it. Which is what a number of our members have done, hence the, hence the four billion in terms of global enterprise value that's been, you know, delivered by members. That's just to say to our clients, 'Look, the women and men round the table, in this network, are available to you and want to help you get from where you are today to where you want to be.'

Yes. Yes.

Does that make sense?

[59:14]

Yes it does. Yes. So, the only other activity I saw that you might want to talk about is the Scrum Alliance. But, I don't know whether that's, what that refers to. Is that something worth picking out?

No. I mean, all I can say... Honestly, I mean, I think if you... Most people in a leadership capacity would probably... Everybody talks these days about Agile. So, the Scrum thing was, the fact that I've become, earlier this year I, I just certified as an Agile leader in a troop, in the Agile/Scrum Alliance sense of the words, it's got a particular kind of meaning. So again, while it just means I'm a certified Agile leader, most software developers, most entrepreneurs, will go, will develop their software using an Agile process, and so on.

[01:00:08]

So looking back over the years, then, is there anything you would do differently if you were to have your time again?

[pause] Oh. Always the killer question isn't it. I always start off with the, having the no regrets thing. And, when I'm coaching, I think that's the, take on board all the information and make additions and make the calls you made at the time, and providing you made them and you did everything you could to make them successful, some are going to work, some are going to, some are going to not work. So... You know what, I've had an incredible, I've had an incredible career. I think... I think in, in hindsight, maybe if I had left BT earlier, a little bit earlier, and gone back to my entrepreneurial roots, that would have been a bit funner, albeit...

Yes.

...more fun. Fun. Not funner, as an engineer, using fun as an adjective. You know, so... I suppose, the... It's not a regret, but it's a 'what if'. And I don't ponder too much time on it, because, you know, as I said, the one great thing if you're entrepreneurial within a big corporate, you have the opportunity and you have vast resources at your command. So if you want to do something good, like, I know we did, we did a project, One Laptop per Child in, in the Nineties, the ability to get, you know, corporate resources. Working on the Olympics, those sorts of things. You don't always get the opportunity if you're working in a, in a start-up that's by definition having to work on a relatively narrow, narrow focus of things. And the opportunity obviously to travel the world and work with great women and men entrepreneurs and engineers all around the world, may not have come if I, if... So you can do the 'what ifs', and probably that might be one, because it's, I'm really enjoying working... There's a real buzz about people who are entrepreneurs, because they, you know, it's just the feeling of, they want to change things and so on. But, I have that opportunity now. I'm still intending to be very much active with start-ups and scale-ups, working particularly in areas I'm passionate about, like health tech, cyber security, and, more and more increasingly, impact tech. Because when you look at the climate crisis, I absolutely believe that's, it's going to be engineering solutions that are going to help that.

[01:02:36]

Well actually, I was going to ask you if you could look into your crystal ball a bit, and maybe consider sort of, in the next ten years or so, what changes you think technology is going to, to bring to us, in society in your, in your sort of field.

[pause] Well... Well if I knew that, [laughs] I'd be able to make some, some incredible investments, like, I should have invested in, in, we all should have invested in Zoom and all those kinds of bits and pieces. Well, I mean you can see the trends. AI, machine learning, the sort of things can do with those. Drug discovery, the fact that everything will be customised. You know, you'll walk into your, even if you have to walk into your virtual physician's office, and she will say, she will give you a customised, customised treatment down to you. The kind of ability for AI machine learning to do those sorts of things. Clearly, transport and travel is going to change significantly as we move to sort of, more greener ways of, of doing those sorts of things. I worked with a number of agencies a few years back on, you know, having every, every journey powered by electricity by 2030; then it was considered very ambitious, and obviously still will be, or still is. But unless you kind of go for those really radical changes, I think we've got to get to the stage where we're not just halting climate change, but we're hopefully in a stage where we're reversing, reversing climate change and so on.

[01:04:15]

And the other thing for me is also, final thing is, since I had... I mean I've been very lucky, I, I was born and brought up in a rural area where there weren't many job opportunities, certainly in the tech world. And my other passion is to really give women and men, wherever they are, you know, that opportunity to work in this great industry. I mean, it's, it's given me nothing but, you know, by and large joy and pleasure. Of course, there were the times when it was tough and difficult, but that's just, that's life. But the vast majority, I've met some amazing people, we've done some amazing things. We've changed some, some lives very positively. So, giving everybody that opportunity that, that I had, because I had great teachers, you know, from Dave Williams through to mentors at BT, through mentors at, in and outside the industry, mentors in the Worshipful Company of Information Technologists, without those opportunities, the women and men, I wouldn't be here with, speaking to you now. So, I only think it's right to give everybody that opportunity, if they've got the

attitude, if they've got the passion, if they've got the desire. It shouldn't matter what postcode they were born in; it should matter about them as people.

[01:05:29]

Yeah. So what would be your advice to young people thinking about entering the IT industry today?

[pause] Mm. Well I mean, the fundamental thing is, is being kind of interested and curious about the, you know, the topic, and so on. It would seem to me, there's lots of stuff that you can do if you've got access online and, and through school to things. I mean that said, of course, where I'm going is probably more fundamental: if you don't have access to the Internet, and you don't have access to a device, you're not going to have fundamental access to, to the ability to develop your skills and so on. You know, beyond that, there's a few, only sort of, more general clichéd things I could say, but I think it really is all about your attitude. If you think, if you think that's what you want to do, or even if you're not sure, but if you stayed curious and, you know, passionate about kind of learning stuff, then you've got every opportunity. I'm always amazed in the IT industry how many colleagues are from, I don't know, arts backgrounds, but they've learned coding from, from, you know, and making significant difference in a, in a tech world and so on. And, I'm very much also of a... We talk about STEM and STEM learning, but I always, I always, quite like, choose the acronym STEAM, which adds arts to it. Because, I mean, I, I always joke with my daughter, who's from an arts background, that, engineering is, is, you know, makes the world, and, and is creating the world, and shaping the future, and I'm very much into that. Working at the Royal Academy of Engineering and other places, and obviously, Worshipful Company of Information Technologists, mentoring and so on and so forth, but, you know, where would be without, you know, music, opera, books, theatre, that kind of stuff? So again, finding, you know, helping technology to make that better, or, more cost-effective, so we can still receive and enjoy great art, I think it's also really really important.

[01:07:38]

Yeah. OK, so you would, even if people have an arts background, you would, you would not discourage them from coming into IT if they think that's, that's interesting?

No no, absolutely. And you can see what an impact you can have with, with IT, in terms of, you know, anything and everything. I mean, everything, everything is a tech company now, these days. You know, people say, 'Oh you're in tech. So what do you do?' Well, I mean what company doesn't involve, what activity in life doesn't involve tech? I, I remember my, talking to my son when he was going, he's, he's moved into film production now, but when he was going through his A Levels, and you're kind of doing the, what do you, 'What are thinking about when you're, for you're a Levels, and maybe your degree?' and he said, 'Well I, one thing I know I'm not going to do, engineering.' And I said, 'Why?' He said, 'Well, oh it's boring, it's, it's, you know... You know, what's it useful for?' And I said, 'What, you mean... The electric guitar that you're being, amplified and you're playing, and, that Apple computer that you're using now, and that gaming.' 'Mm.'

Yeah

We'll see. So you know, there's... And gaming's one of those classic ones where you've got, and film now that he works in, there's that classic area where you've got arts and technology melding and mixing together. And I think you're going to see, answering the question again a few minutes back, I think we're going to see lot more of that. I think that's a really interesting area. In fact, the more and more you see the melding of arts, the ability... And also, for engineers it's the other way round. For young engineers, you know, develop skills in terms of presentation, when, I was talking about my 7Cs earlier, the communication aspect. The ability to communicate an idea succinctly and with passion and with inspiration is, is absolutely at the forefront of all the great entrepreneurs that, that have and will happen, whether it's, you're explaining to an investor so she will give you the, give you, you know, support funding, or they're explaining to a customer so she will buy your service, or, and so on and so forth, or, whether you're explaining in more detail to your engineering team lead and she says, you know, she, you know, 'You've got to be able to communicate in all those different styles and ways. So constantly work on those, I hate the word but I'm going to have to use it, softer skills. They're, they're called soft skills, but, empathy, leadership, communication, just so, so important. Because, having a great idea, back to my model, is easy. The ideas are easy. Executing them are hard. And,

there are still, even though technology is wonderful, and even though AI and machine learning is wonderful, IT remains, and our society will remain, about people. So put people and customers at the centre of everything. You know, people, whether they're your customers, people, whether they're people you work for, whether they work for you, whether they're your partners, whether they're your peers, whether your colleagues, whether they're your, whatever they might be, put people at the heart and centre of everything you do.

I think that's a suitable place to end it. Thanks very much, Paul, it was very interesting to hear about your life, and I'm sure many of the, of the viewers and listeners on the AIT will find it inspiring too. So thank you very much.

Thanks Jane. Take care. Bye bye.

You too. Bye bye.

[End of Interview]