

S1 00:10 Hello, and welcome to the Moxie Podcast Episode 6. This is the companion web show to the Moxie's Sessions. Now the Moxie sessions is an internet economy discussion group held once a month in Auckland, New Zealand. Its purpose is to bring together a group of interesting technophiles from across the economy to talk about how New Zealand can take advantage of the internet to improve its economic performance. The Moxie podcast is proudly brought to you by Internet New Zealand, whose mission is to protect and promote the internet for New Zealand. And you can find them up at internetnz.net.nz. My name is Glenn Williams, and I am steering this Moxie ship all the way over in London, while my guests are just beginning their day over in New Zealand. And my guests today spoke at the last Moxie on July 1, where the topic revolved around the concept of the iWord. Yes, Innovation. "Is New Zealand an innovative place?", was one of the questions. "What are we good at?", "What do we contribute to the global market place of ideas from all the way down here?", or over there. I guess if you're sitting in my position here in London and, "What could be done to improve things?", "Does the word innovation really mean anything at all?", Suppose it gets a little bit philosophical I guess. Now, my guests and speakers on this topic are Will Charles, who is the general manager of Technology Development at Auckland University . Will, welcome to the Moxie Podcast.

S2 01:39 Hi, everyone.

S1 01:42 And Richard Fraser who is the Head of Emerging Technology and Commercialization covering Australia and New Zealand at Alcatel Lucent. Richard welcome to the show.

S3 01:50 Hi, Glenn, hi everyone.

S1 01:52 And Brett O'Riley who is Chief Executive of Auckland Tourism Events and Economic Development. Welcome to you.

S4 02:01 [inaudible]

S1 01:56 And first of all Will, we'll go to you. Can you give us a brief rundown on what you were talking about at the Moxie Session?

S2 01:34 Yes. So just a background, I work for an organization that's called Auckland UniServices which is a subsidiary of the University of Auckland and we're responsible for pretty much all of the industry engagement that happens between the University of Auckland and the private sectors. So businesses— and we undertake all of the contract research, sponsored research that businesses do for the University of Auckland and also we undertake all of the technology transfer function for the University of Auckland. My particular role is to find, select, polish, protect and then transfer as quickly as possible to the private sector, the IP that is generated through research that goes on in the University. And one of the points I was talking about when we met last week was that the process of technology transfer really needs to change. If you go back from the old days, research just used to happen and it would sort of osmosis into industry through the hiring of graduates or somebody might know something. Then around about 15 to 20 years ago, universities formed technology transfer officers which was very much focused on pushing IP inventions out. And as we discussed, inventions are not innovation. And so there is a gap between that process of something being invented and then becoming a product or a service from which money can be made and that was— so the push-sided in part, in some places works but it was really very much a roll of the dice. If you look at technology transfer offices around the world that only do technology push. There are very few that actually really make any money, there are very few that are of scale that can actually really drive a push on the approach. Then the other thing that happens within universities themselves is that through the [inaudible] what society says, "Hang on a minute, we pay for a lot of research. We want more outcomes", which is completely reasonable. Research is actually started to work out that— they could get more money to do what they wanted to do or things that they're interested in by engaging with companies and by engaging with the private sector and so then, what that trended towards is a combination of a technology

push and pull from the private sector. However, this is something you can't really leave just for a thing and just to let happen because it tends to happen relatively slowly. Then the next stage really was to put the two things together and really drive a much more connected approach to connecting the private sector to research that was going on in industry and to try and turn more invention, more research into innovation. Because you can't do innovation without the private sector, because innovation requires things like innovation in business models, requires innovation in financing models, requires innovation and a whole bunch of other things, which universities can't and shouldn't try and attempt. So really my talk was just to sort of talk about this journey of invention to innovation from a university perspective and one of the things that we have to look at is how do we get better at grasping voice of market, not to direct research, but to inform, and how do we think about innovation and inquiring voice of market, how do we think about what it is that we can drive a university to be better off town and gown and that was really my discussion there. We're relatively lucky in New Zealand. University of Auckland is quite an entrepreneurial university. Over half the research that gets done at this university comes through our offices. In other words, it's not from what you describe as both research and science. It is research that we either have to go and bid for or we have to present to industry and they have to agree that it's a good idea that we do it. And in addition to that, what it also enables us to do is, in developing those contacts and knowledge of our clients means that we are able transfer Serendipity's IP much faster to the private sector than others. You say, "Well does that work?" Well, the foresight of our people who set this organization up 25 years ago, we're now the largest organization of our type in the Southern Hemisphere and we've been growing. We've doubled in the last five years and we've got some ambitious plans to double again to 2020 and we believe in order to be successful at that, we are going to have to innovate in the way in which we address the contacts between town and gown and that's something that we are working right now to try and address.

S1 08:05

Really sounds like innovation on top of innovation. Innovating on what you're actually already doing in over the 25 years. That's a good length of time to work out whether or not things are working and they obviously are, Will.

S2 08:16

Well, they're working to a point. I still think that there's significant gaps in the speed at which we're able to communicate with the private sector about what's available. There are significant gaps in our ability to attract very high risk capital. I think there are some things which I think Brett will talk about where local and national governments can assist in creating what I would call more touch points between research organizations and the private sector and we look forward to working on those. The other point to make is that we're really only still scratching the surface of— within the university a lot of our— we're still only really talking about maybe 10% to 20% of the available people that are actually really actively engaging in this process. So there's a lot of up-side within the university and there's a lot of up-side in generating more touch points within the industry.

S1 09:24

Okay. Will, that sounds like some fantastic stuff going on there. Let's dive into the private sector with Richard. You're at Alcatel Lucent and been working on something called NG Connect. Can you give us a rundown on that and what you thought about at the Moxie session.

S3 09:37

Yeah, sure Glen and I've picked up very much from where Will left off in terms of driving collaboration between the private and academia— the private sector and academia. NG Connect is a forum to do just that. It has 250 member companies from across the globe. They come together and decide, actually solving some of the problems with technology is greater than just one of our companies. It's a bigger task. It needs an ecosystem approach. So what NG Connect does is try and bring companies together that solve problems like well very much human problems that we face everyday; how do we communicate, how do we get better services from government, how do we get better services

within industry or from industry? And certainly that also allow collaboration within the industry. So NG Connect produces what we call a service concepts that basically proof of concepts with a business model in a commercial case. And we showcase those as future services that shows like CES in Vegas. And the idea there is to again get market visibility of some of the services that come out. And I guess the best way of bringing this to life is give you some examples. One of the most famous that I suppose examples that we've been working on for number of years is a connected car and what happens when you bring ultra-fast broadband technology together with the automotive industry. We've done this in several versions. We've done a consumer vehicle. We've done— we're just working on a new version in the rental space. We've done our first response vehicle and actually it's quite fascinating to see what happens when you create a canvas, which is the hypothesis of what happens when automotive meets high tech and the various parties that come on board and start painting their picture of what this might look like and then the consumer case, it was very media-oriented. Although there were lots of apps installed in a vehicle that would enable social media but also a connection back to automatic applications within the home such as power consumption: making sure the iron's turned off when you travel off on holiday but also about entertainment for the children in the back of their car and so forth. And the emergency response vehicle environment, it was more about how does the Head HQ who's trying to determine on what resources are needed in that emergency situation see what's going on through video surveillance and how do we set up which is obviously something very real to New Zealand. An emergency response which has, which can broadcast the communications network out into the environment so all different agencies can communicate on the same bandwidth. So, all of these sorts of ideas, we call service concepts. NG Connect is the member environment that brings companies together to try and solve them. And it's very exciting to be bringing that into New Zealand and into Australia but we're contemplating New Zealand at the moment, where there is such a focus on technology and how it enables society. Especially, with the rollout of ultra-fast broadband and the uptake of ultra-fast mobile technology. Suddenly, we, as a economy can rethink the way services are taken to market, whether that's health, education, business services and it really requires the collective brain power of universities, private institutions to come together and say, "Right, how do we rethink the delivery of health? Or how do we improve the delivery of education? Or how do we XYZ, hypothesis that can improve again, and contribute to New Zealand's economy and efficiency?". And I think this is the other part that I took the discussion. I think it's really interesting for New Zealand to consider its place in the global economy because suddenly with ultra fast broadband technologies, we are now on an equal footing with any other country. We can collaborate and be part of a global discussion on any particular industry segment. There are no barriers to us being part of that and yet we have one of the most amazing places to live and exist in the world and so I referenced a recent speech by a guy called Louis [Zacharella?], from the Intelligent Community Forum, who talked about this very phenomenon and the fact that they felt that communities now needed to leverage culture and community spirit and those two factors are a strong competitive advantage when it comes to the internet economy. So I think New Zealand – thinking about all those factors I've run through – New Zealand really is very well placed to be a hub for innovation globally, contributing into that discussion globally, and it will attract some of the brightest, most innovative minds. I think, because of the fact that we have a rich culture and a very rich community spirit in New Zealand. And, it doesn't— it no longer is a disadvantage that we're at the bottom of the earth. In fact, we're equal footing as soon as we get our network up and running. We are in equal footing with any other modern market in the world, so that was my response to the question.

S1 15:23

And perhaps the question for Brett next might be, are we on equal footing not

S4 15:41

just in the world but within New Zealand? And Brett O'Riley is the Chief Executive of Auckland Tourism Events and Economic Development.

Yes, well, part of the Auckland plan in the economic development strategy for Auckland is the goal for Auckland to be an innovation hub of the Asia-Pacific rim. And I think if we look at where the study in the country is today, we would say we have all of the right ingredients to achieve that. You've heard from Will that we have the educational intensity and the focus of universities and other tertiary institutions in Auckland and a really strong innovation focus here. And you've heard from Richard that we have a really strong corporate sector that's engaged in innovation both from a multi-national perspective and from local companies. And increasingly, we have a very vibrant start-up culture. One of our views when we talk about this at the Moxie Session is that what we really lack is connectedness. And so there are number of initiatives around that. I mean, in some senses it's simple and it's really just getting people together in that innovation ecosystem on a regular basis so one of the initiatives we are championing is the Wynyard Quarter Innovation Precinct which we see is a showcase for innovation in Auckland, where companies can regularly get together for events, for product launches, because just that very basic connectedness is really important and then we're a mixture of the established companies in the RTTC down there as well as opportunities for incubation, recovering spaces, acceleration. Lifting it up a level, there's obviously opportunities for organizations like AT. There's Auckland's Economic Growth Agency, to try and facilitate connections between the players in the ecosystem and that's a role we take really seriously. And, it's been pleasing to see central government recognized it with the creation of Callaghan Innovation. Now, it's quite timely we should have a podcast today because Callaghan just submitted their statement of intent to Parliament News today for this brand new organization and it was pleasing to read through that last night and to actually see a real strong focus on their roll as a connector and I think they've created a new description for a role which is an innovation agent, someone who basically is working in the ecosystem linking people up and a lot of focus on networks and on partnerships. So I think my view has always been that New Zealanders are inherently inventive but the part of the innovation piece that we haven't always been good at is commercialization. So I think the combination of the infrastructure that we now we'll have in place with broadband, with the universities and the research sector would really showcase companies to focus on means that now being very deliberate and making sure that we're connecting those pieces up on a daily basis is really going to be key to maximizing the potential that I think we know New Zealand has.

S1 19:13

Okay. I'll throw this one out to the floor. Anyone can answer this one. Is it a perfect storm at the moment where we have the ultra-fast broadband coming online, we have the program at Auckland University that's been around 25 years that really seems to be maturing. We have companies like Alcatel Lucent who are looking also to universities and institutions for their innovation and then driving it in the private sector and we have people like Brett and his organisations wanting these hubs to exist and actively promoting them. Is this right now we living in a perfect storm?

S2 19:21

I can maybe make a comment on just that. I think it's important to note that, I think words like a perfect storm are probably not the right one. Every country in the world wants to do what we're trying to achieve here. So, there's nothing necessarily unique in about what we've got. If you like, what is starting to align is there's probably more— if I was to reflect on this over the past five years, there's probably a lot more commonality of everybody realizing of what interventions make sense for the whole sector and I think our endorser Brett et cetera and Callaghan Innovation and I think where their statement of corporate intent is a very, very good sign around addressing some of the sort of market failures that we're talking about here. I think what we're all coming to which is brief, from my perspective really encouraging is that we've moved a little bit

beyond just trying to import a solution from somewhere else that might drive this. And I think the opportunity for us here in New Zealand is now that we got a point at which we can create a New Zealand solution that is innovative and belongs to New Zealand such that maybe rather than us going to say, "We need to be like Denmark" or "We need to have an Israeli solution" or "We need to replicate what goes on on the West Coast of United States." All of which have their own unique things which made them work, that we look back in say, five years time and said, "We created a New Zealand solution." And I think if we can do that, then I think all the bits are in placed for that.

S3 21:37

I agree with Will in thinking it's not the right term really to have a perfect storm, but to describe it as that but I think there is now widespread agreement or broader agreement that there is economic gain from this sort of collaboration and it's very exciting to hear three different sectors and that we have research innovation from universities. The local government and private sector are all talking about trying to bring our IP and our innovation together locally and that's really exciting for New Zealand. I think we all understand there is economic outcome from that. And it's also exciting to hear that we have a vision for Auckland that is about being the innovation hub for the region. Now, I think the difference though in what we need to be aware of here is that the success comes from communities driving around this. This was my point earlier. I think if the national direction is to set the framework for innovation through technology and access to internet and so forth then that's great, but it is now up to the smaller communities or the communities around New Zealand to bring their own initiatives together in that local environment. A little bit like what AT is doing and then I think collectively we will, as a nation, become a much more richer place when it comes to innovation. Trying to boil this one at the national level, I think will be too hard. I think it's very much incumbent now on the communities to drive this agenda locally.

S4 23:10

I think one of the comments I would make is that the stars are really starting to get an alignment. I think previously this— we've had the various pieces of the ecosystem probably at different stages of their evolution but the things I had is that, there is genuine alignment now from the aspirations of young entrepreneurs right through to central government and a great alignment between people in the system probably talking to each other more than they ever had before. And I think there's also some genuine scale in the system now. The work of the University of Auckland have done over the last ten years across a whole range of areas. Their spark program, their involvement initiative like emerging cup, the work that UniServices have done. We now have a ten-year body of work which a young country like New Zealand in a fledgling area like innovation, is quite significant and it was interesting recently we hosted the city of Brisbane over here as part of a Sister City exchange and that done research across Australia and New Zealand are looking at cities who are involved in innovation. Their research pointed to Auckland being an outlaw in terms of ahead of all of the other cities in Australasia in the way that we were approaching innovation and the results that we were getting out of it. So that's incredibly encouraging and that's the work over ten years that's not so— we're just starting to realize that potential and now central government, really swinging them behind with some serious resources both from a broadband rollout perspective but also now with Callaghan Innovation and some sort of funding devoted to this area. I think it's very really positive.

S1 25:16

Are there any cities overseas that you guys are envious of and would like to follow this similar model? I'll open that to any of you.

S3 25:38

Yes, do you mind if I go for this? I think the guys will know what I'm going to say. In fact, I think Will's visited this particular town, but it's the town of Chattanooga in the U. S.. In 1969 it was declared the most polluted town in the U. S. and I think there was a huge emergency recovery plan to go rejuvenate the town. Now it's quite a modern environment. It has a free public transport system with sustainable-energy vehicles driving around the town, that's

attracting a lot of VCs into it, there's a lot of start-up activity and incubators going on. One of the key initiatives that sparked all that activity was the building of a fiber loop around the community. By the— in fact by the Power Board. The Power Board decided that it needed to take a role in rejuvenation and to set up the fiber network to initially as a smart grid-type of initiative for power consumption and distribution but then realized it could deliver triple play services in the industry, that means video, voice, and data. And so, it started to deliver some very interesting services that the communities hadn't seen and then opened up that access. It now offers 60 megs of free wi-fi around the town and for its inhabitants and businesses that operate. And it's now a very vibrant , start-up type of community, very modern and it is starting to be featured in fact, by the U. S. media as the future for the U. S. economy broadly. We're heavily involved in that as a company but it is been a big supporter of the NG Connect work and has launched some of the innovations out of the NG Connect Program. So, that's the sort of thing I'm looking at and as a vision I guess for New Zealand. It's obviously attracting economic input, economic discussion, and economic activity that's good for the whole community.

S4 27:35

I think there is another thing about— just to add to it, maybe another thing as well which is— I think it's around the— it's not so much to build as it would come but it's having courage to maybe see that there will be unintended positive consequences from some investments, that some time the economists and policy makers can't predict and there's another one in Chattanooga again is that they built a one-mile oval road track – banked road track – that just goes round and round. And in the middle of that, they put a research center. And you say, "Why on earth would they do that in Chattanooga?" but then as a result of that, Volkswagen decided to put a plant in Chattanooga, a manufacturing plant because they can go around and they can just do a few— they can do some checking at that test track. Now, if you said to somebody in policy, "Why are you building just that?" That was just, it was a courageous decision. I think sometimes it's easy to get held back by trying to model things. It's impossible to model the future. So it's just sort of I think thinking about supporting innovative, unintended consequences of infrastructure investments because at the end of the day, where government can really make a difference is in infrastructure and I think those are some of the things that would help us. I also think that I would like to be in an environment which had a number of larger organizations. Having the fact that we have an economy that's based on very, very, very, few large companies and lots of SMEs, means that we're short of human capital, we're short of management, we're short of governance. A lot of our best people do get snapped up by overseas organizations and go overseas and work. If we had five more frontiers that would enable people to get to rotate in and out of large companies, get better product management and commercialization experience, and then come out and be entrepreneurial or be the employees of these emerging start-up companies because that would be the thing that we miss the most is really human capital.

S1 30:13

Well, that's the constant goal for the Kiwi expats key organizations is to bring back those latest back to New Zealand to continue the great work back at home. Well, thanks so much for that comment, and I think we've really only just scratched the surface so I think we could go on for a whole lot longer but we are short on time and I know you guys are very very busy. And I do appreciate your time in this Moxie podcast. We've had Will Charles who's General Manager of Technology Development in Auckland University, Richard Fraser, Head of Emerging Technology and Commercialization covering Australia and New Zealand at Alcatel-Lucent, and Brett O'Riley, who's the Chief Executive of AT. Thank you so much to you guys. Thanks so much, actually, very briefly, Will, if people want to catch up with you online, where can they find you?

S2 30:57

<http://www.uniservices.co.nz>

S1 30:56

Brilliant, uniservices. Richard, where are you hanging out?

S3 30:32

<http://www.ngconnect.org>

S1 31:05 And, Brett, what about you?
S4 31:05 brett.oriley@aucklandnz.com
S1 31:10 Fantastic and follow their work there and perhaps continue the conversation or if anything has sparked any questions and you want them answered or you want to bring up, then go and hit them up over there or go along to the <http://themoxiesessions.co.nz>. You can find this podcast on iTunes or downloadable at the Moxie Sessions and you can find the back issues there as well. This is the episode, has been the episode number 6. Thanks very much for the support of Internet New Zealand, at <http://internetnz.net.nz> and check out <http://nethui.org.nz> for all the conversation that's been happening there as well. Thank you very much also to Hayden Glass, who is the convener and organizer of the Moxie Sessions and he helps put the podcast together as well. Once again, thank you very much guys, have a great day there in New Zealand and we'll be back next time. Cheers, see you.

S4 32:09 Thank you everybody.