ECONOMICS AND INDUSTRY STANDING COMMITTEE

INQUIRY INTO TECHNOLOGICAL AND SERVICE INNOVATION IN WESTERN AUSTRALIA

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
THURSDAY, 11 FEBRUARY 2016

SESSION FIVE

Members

Mr I.C. Blayney(Chair)
Mr F.M. Logan (Deputy Chair)
Mr P.C. Tinley
Mr J. Norberger
Mr T.K. Waldron

Hearing commenced at 2.01 pm

Mr ZANE THOMAS PRICKETT
Director, Resource Innovation and Information Technology, examined:

Mr JUSTIN STRHARSKY
Director, Resource Innovation and Information Technology, examined:

The CHAIR: On behalf of the Economics and Industry Standing Committee, I would like to thank you for your appearance before us here today. This hearing is being convened to enable the committee to gather evidence for its inquiry into technological and service innovation in Western Australia. You have been provided with a copy of the committee's terms of reference. At this stage, I would like to introduce myself and the other members of the committee present today. I am the chair, Ian Blayney, the member for Geraldton. With me is the deputy chair, Hon Fran Logan, member for Cockburn, and Hon Terry Waldron, the member for Wagin. The Economics and Industry Standing Committee is a committee of the Legislative Assembly of the Parliament of Western Australia. This committee is a formal procedure of the Parliament and therefore commands the same respect given to proceedings in the house itself. Even though the committee is not asking witnesses to provide evidence on oath or affirmation, it is important that you understand that any deliberate misleading of the committee may be regarded as a contempt of the Parliament. This is a public hearing and Hansard is making a transcript of the proceedings for the public record. If you refer to any documents during your evidence, it would assist Hansard if you would provide the full title for the record.

Before we proceed to the inquiry-specific questions that we have for you today, I need to ask you the following: have you completed the "Details of Witness" form?

The Witnesses: Yes.

The CHAIR: Do you understand the notes at the bottom of the form about giving evidence to a parliamentary committee?

The Witnesses: Yes.

The CHAIR: Did you receive and read the information for witnesses briefing sheet provided with the "Details of Witness" form?

The Witnesses: Yes.

The CHAIR: Do you have any questions in relation to being a witness at today's hearing?

The Witnesses: No.

The CHAIR: Would you please state the capacity in which you appear before the committee?

Mr Strharsky: I am a director of Resource Innovation and Information Technology. We trade under the name Unearthed. I am here in that capacity.

Mr Prickett: I am also a director of Resource Innovation and Information Technology. We run the program Unearthed.

The CHAIR: We do have some questions for you, but before we get to them, I was wondering if you would like to make an opening statement.

Mr Strharsky: I would do, primarily because our formal submission was made in August. Since then, we have seen quite a lot of development of our program and I would just like to touch

on that and the changing opportunity that we see for Western Australia. The substantive content of our submission in August referred to the opportunity for Western Australia to become a resources innovation hub of the world. I am proud to say that we have seen greater and growing potential for that in the time since we have made that submission. In particular, Zane has just returned from Cape Town an hour ago.

Mr F.M. LOGAN: Well done!

Mr Prickett: I am committed!

Mr Strharsky: We held our first international innovation event for the resources sector in Cape Town. That event went very well and it is part of our vision of making Australia the resources innovation hub of the world. We are interested in finding and bringing to Australia the best technical talent for working on the sector's challenges and for creating opportunities for entrepreneurs on the basis of those challenges. I am very pleased that our hypothesis that we could do that from a base in Perth is seeming to be proven out. In addition, I think since then we have seen changes in the national government's agenda that clearly have bearing on what we are talking about today and we watch those with, I suppose, cautious optimism. In addition, it is important to note that we are recognising more and more that our opportunity is one that does not occur in a vacuum. The opportunity that is in front of Western Australia is one often that is in competition with the other states in Australia for the resources and for keeping talented people here. We are not the only state that has access to leaders in the resources sector to drive the kinds of opportunities that we look at in particular; nor are we the only ones internationally, and we are finding out that we are in international competition with other centres for innovation and excellence. In particular, that is why our submission refers to our unique competitive advantages in Australia, and in Western Australia in particular. But since we have made that submission, there have been developments in other states about their willingness to support innovation programs, and I think it is worthwhile for us, as Western Australians, to pay attention to those things. Certainly, at Unearthed we have now a national and international program where we understand the competitive pressures that we see for talent in particular. If we want to see people creating the next generation of businesses on the back of opportunities in the resources sector, they have a choice now of where to go. So, our challenge is making Western Australia the best place in the world from which to build the resources-focused technology business. We are happy to chat to you about those opportunities today. Thank you for the opportunity.

Mr F.M. LOGAN: If I can lead off, can you give us a bit of an overview, particularly as you have just literally stepped off the plane from South Africa as well, of the types of innovations and start-up companies and companies that want to get to the start-up phase out of the innovative products that they have in what is clearly either the METS sector or associated mining and oil and gas sectors, as you see it?

Mr Strharsky: In particular, I think it is perhaps important to note the megatrends in technology that are facing industry. We pay attention to some 11 or 12 trends in technology—one is identified by McKinsey in a report of theirs—that are disrupting all industries around the world. In particular, a bit of a back-of-the-envelope calculation that we have done shows that the global resources sector faces a trillion dollars of impact from 11 of those technologies in the next 10 years. That is a hundred billion dollars of impact to the Australian resources sector alone. That is our opportunity to lose. The companies that we are dealing with, the opportunities that we are looking at, are about how we can go after that disruption and keep that innovation here. Are those Australian companies going to be buying that from overseas companies—for example, from California, where I am originally from—or are we going to create the capacity in Australia to build those technologies? Some of those things are internetive things: Cloud, mobility and the enterprise, robotics—things that you would be well across. The kinds of technologies that we are seeing start-ups create are perhaps best illustrated by Newton Labs, a company that has come out of our program. They got

their start at our 2014 event on the back of a challenge brought by Rio Tinto. That challenge was about large boulders blocking up the crushers on iron ore operations. Newton Labs has developed the proprietary technology which senses the vibration in the trucks when they are loaded and can distinguish the size of the material loaded in those trucks so you can divert the big ones that do not block up the crusher. They are also finding opportunities for the use of that technology in understanding blasting—so, further upstream in that process. They won a WA innovator of the year award towards the end of last year and they now have first revenue. Those are the kinds of opportunities that we are seeing. Our intention is to try to create eight to 10 companies of the scale of Newton Labs a year. That is what we would like to be able to do in our technology accelerator, the outline of which was presented to you in our written submission.

Mr Prickett: To add to that, a lot of what we support is even before they kind of have the idea and the technology. It is around getting innovators that have not looked at the resource base. The resource challenges are extremely big; they are very interesting. But it is difficult to get to know them. How do you know that a large boulder blocks a crusher on-site if you are a technology person based here out of Perth? We work to make sure that those challenges are open so that even though they have not experienced it, they have their innovative minds that then come down and try to solve it.

Mr F.M. LOGAN: Just on that, as a committee, we did a tour of other states just to see what the other states are up to, and met with the federal government to get some understanding of where they are going with their statements on innovation and to see the responses from other states. Interestingly, when we were in Queensland, we went to a company called TAE, which is a company on an RAAF air base at Amberley in Queensland. That was a company that was originally owned by Air New Zealand and then Air New Zealand wanted to flog the company, so it was a buyout by the staff. They have done very well indeed. They have grown the company from straight servicing of FA18 fighters to a whole series of other things, including tanks. They are doing work for quite a number of the Asian air forces as well. One interesting thing that they did is that, because that was a management buyout and because it was the engineers and the younger people who were running the operation, they looked at their equipment that they had, and one of the pieces of equipment they had was quite a modern pressure moulding machine, and they believed that they could actually mould high-pressure aluminium and steel casings. Because of their involvement with the military, the American F35 program became very interested in what they were doing, and now they make all the computer casings. Because the computers are so vast on those F35s to run the plane, they needed a water-cooled device to actually cool the computers down. They make all the casings for all the fighters that come out of the United States, which is a substantial contract. But that just shows that here is a piece of technology that sits in a corner and we only ever use it every now and again, and we come up with an idea of being able to use it to innovate. How many companies do you think are out there in Perth—for example, fabricators who fabricate for the mining sector—that have ideas and have equipment sitting there doing nothing?

Mr Strharsky: Absolutely. I recently visited Orbital Corporation's offices in Balcatta and had a tour of their facility. They may not have ideas, but, boy, do they have an opportunity to assist technology start-ups with ideas to prove out the hardware products that they build and make sure that they are ready for use in industrial applications and that they have met the certification criteria so that an end customer knows that that new product is not going to introduce a safety hazard or something like that. One of the reasons that we are excited about the opportunities here is that we have got the supply chain —

Mr F.M. LOGAN: Already in place.

Mr Strharsky: — ready for that opportunity. Different parts of that supply chain are here, all the way from academic institutions that are some of the best in the world and specialise in resources in particular through to SME companies like Orbital that have an interest in funding technology start-

ups to increase their exposure to those growing companies, as well as the capability to assist them along the way, all the way up to decision-makers at the tier 1 companies who are pulling through those things to increase their efficiency and global competitiveness.

The CHAIR: You said a while ago, and I am trying to remember exactly what you said, but it was about eight to 10 opportunities a year or something.

Mr Strharsky: Yes.

The CHAIR: It could be that quite a big mining company has a particular problem and you have got a sort of pool of people who can perhaps come up with a solution to that problem. Do the companies bring themselves together? Who sort of facilitates that joining up?

[2.15 pm]

Mr Strharsky: If I can walk you through our broader vision and our larger innovation program, we engage with industry, which is something different from other innovation programs, to understand the kinds of challenges that they have that can be addressed by technology. We then bring those challenges to what we call open innovation events. They are called hackathons and, at those hackathon events, independent innovators build prototype solutions in a weekend. We have seen in 2015 more than 100 promising prototype solutions, at five events around Australia, to those challenges. It is those that make up the subset of opportunities that we look at. Not all of those are ready to be commercialised in a technology start-up, but the ones that are, according to some criteria like is the market opportunity big enough, is it the right team, and do we believe that we can help them, for those companies or opportunities for which the answers are yes, then we would like to see them go through our technology accelerator program, which we piloted with one company in 2015. That program is a six-month long focused intensive program that gives teams all of the business skills that they need and the approach to running a technology start-up methodology that we refer to as lead methodology, in the first three months, as well as advice about protecting intellectual property—all of that kind of stuff. In the next three months, they are connected to industry mentors that are part of our program and can assist them with access to the supply chain, understanding how the technology will be used in situ—on site—and making sure that there is a fit between the prototype product and the market place. It is in that program where we see that our capacity in the near term is something like eight to 10 or eight to 12 companies a year, so those are actually eight to 12 opportunities for commercialising technology in six months. What we are after is quick commercialisation of products that will impact positively on industry's bottom line and their efficiency and global competitiveness.

The CHAIR: Is what you do—is that your day job?

Mr Strharsky: Yes.

The CHAIR: Yes, okay, so you are 100 per cent focused on this whole process?

Mr Prickett: Yes, initially it was a start of an idea that we wanted to see happen, because we were quite frustrated with the resource industry—I was an oil and gas engineer for a long time—and knowing the large challenges that they had, and then getting into the start-up technology space and realising the capability they had, and the two were not really talking and they did not know each other's capability. So it is actually running these events where you build something—it is not a discussion; it is not a PowerPoint presentation; you are building a prototype—showcases both the big interesting technical challenges that the resource industry has, and the capability that the start-ups and the innovators have.

The CHAIR: So the big companies are quite happy—do they bring their problems to you, or do they bring them to the hackathon?

Mr Prickett: They bring them to us, which is the hackathon. So the core is, come to us with the problems and the data, and we are going to open those up during the hackathon.

Mr T.K. WALDRON: What sort of role do you see for the government in assisting? We are doing this inquiry. Where does the government fit in where it could assist the process, and more importantly get the actual outcomes? What is the government doing in getting involved?

Mr F.M. LOGAN: And that is not "We're from the government; we're here to help", because that I know that is the last thing you want to hear! What role should there be for government?

Mr Strharsky: I think that, in the private sector, when folks like Zane and I put our futures on the line to build this business, which we have—we are reinvesting in the growth of our business right now—one of our concerns is that government does not step in and compete with the private sector in filling a need that we have found. On the other hand, we have been very fortunate to have received assistance from government in our first year of business to de-risk the opportunity for industry so that they could feel confident enough with what was a very new venture, getting on board and having a go. We received some funding through a competitive tender through the national Department of Industry, Innovation and Science in 2014–15, and that was helpful for us in having a conversation with our industry funding partners to convince them that government is supporting this.

Mr T.K. WALDRON: So it gives them confidence as well?

Mr Strharsky: Absolutely. So I think that kind of often matched funding that government can provide is very useful at the early stages of setting up these kinds of opportunities. In particular, I think that the area where we have the most need in doing a similar thing is with the technology accelerator. Government was instrumental in helping us convince industry to participate in our open innovation events—that suite of hackathons that we ran last year—and now that is working very well on the back of industry funding and it is now accepted, and we no longer necessarily need government to step in and provide funding or credibility for that program, because we have done very well, thanks. However, the early stage commercialisation part of what we do—that is, the next stage—getting from those great ideas and those weekend prototypes to commercial products that make an impact on industry is absolutely the biggest opportunity right now, and it is where we need assistance from government, for example. We have a need to cover the operational costs of running that program, and the reason I think that that both is an opportunity and makes sense is because industry does not really understand yet how to fund that particular program. As much as they did not really understand what the hackathon was—an open innovation event where we told them, "Here is this black box where you put in your challenge, and out the other side comes some prototypes that you are going to be excited about"—they were impressed that the government was going to step up and say that this is important and you should get alongside these guys and give it a go. So that could help. I also think that the national discussion that we are having is very positive for focusing attention on Australia's ability to compete in terms of innovation. I think the state has an opportunity to do a similar thing—that is, making innovation, and technology innovation in particular, a topic of conversation that it is okay to have on the terrace and in industry.

Mr T.K. WALDRON: Do you think it should be government coming out and doing something—not millions of dollars, but letting people know that government is in that space and keen to support that space? Is that what you are saying?

Mr Strharsky: I have not given specific thought to, if you have a pot of money, how could you accomplish that goal of having people talk about this kind of thing. I know that the state is already supporting some things, in particular the kinds of events that we have around start-up week. We held our demo day in the middle of a week-long events program in December, in support of those kinds of things that the private sector is already stepping up and doing, but being seen to be supportive of it, and then perhaps opening channels for communicating that to a broader audience, so putting at the disposal of organisations like us access to means of telling that story to stakeholders where our reach is limited. I think that could help.

Mr Prickett: I think those are platforms that the government supports—things like LNG 18, AOG, these kind of big events you guys get excited about bringing in, I think we should be excited about showing the capability of what is here. So, how do you make sure that capability is key on those agendas? There will be start-ups, there will be SMEs—it will be a full range of things—but the large companies can manage themselves quite well in those venues. I think getting the support down to showcase what is possible in WA could be a big boost.

Mr F.M. LOGAN: Can I ask about that area that you just talked about, which is progressing the innovative ideas through to commercialisation, or at least just prior to commercialisation. What are your views on the Western Australian situation for venture capital, angel capital start-up money, because obviously you, like all of us sitting around this table, have heard all sorts of horror stories? What is your view on that, and have you got any advice?

Mr Strharsky: That is very good question. I think it depends on who you ask, what you hear about that. If you ask any of the very early stage tech companies, like the ones that we talk about, they will tell you that capital is very thin on the ground, but that is because they perhaps are not having the right conversations, or are not necessarily at the right stage of their business to attract interest from the sources of capital that are out there. There happens to be a lot of capital in this state, and right now that money is not flowing into resources exploration projects. That money probably wants to go into diversifying its opportunity for return, in particular in investments in technology. I think my broad view, personally, is that there is probably enough capital around to scale some of these companies and go after those opportunities, but there is a mismatch in the middle of what we call the funnel—that is, at the lifecycle of those companies, where, like they did in labs, they have a brilliant idea and a prototype, but they do not yet have a history of sales to industry in particular. They have what we call the valley of death to cross. It is that early stage capital support for those opportunities, where the number of failures is high but you have to invest in order to see some of those opportunities through, where there is perhaps a lack, and some of that comes from the lack of sophistication of the market for capital in Western Australia for understanding those opportunities and understanding how to get in and provide smart capital. But I do think the good deals get funded.

Mr Prickett: The risk capital is here. If you look at exploration and mining and you understand the exploration funnel and the number of targets that you have to take on to get one or two big finds, that is a well-known process in WA. That process is quite similar to the innovation and technology space. The challenge is that we have been doing the exploration funnel and the geology funnel for decades, so there are tonnes of great players, and they understand the market, and it is a very simple equation for them to manage. We do not have that experience. There is a whole bit of education that has to go on and support to get that going in the technology space. The capital is here.

Mr Strharsky: The purpose of the technology accelerator that we have written about in our submission and piloted last year is exactly to cross that gap. It is to de-risk some of those investment opportunities so that other more sophisticated sources of capital that understand how to scale those technology businesses can come in and see that opportunity and take those companies to the next stage.

Mr F.M. LOGAN: Do you think there is a role for government in terms of an investment vehicle that would be jointly funded by the government and investors to fulfil that role? Other states are actually looking at that, and some have actually moved down that path. So, it is not the taxpayer taking the risk; it is a joint venture fund between the taxpayer and the private sector: if the government is behind it, I will put my money in.

Mr Prickett: The exploration incentive scheme that has come out —

Mr F.M. LOGAN: That is an example, yes.

Mr Prickett: Correct, and look at the payoff that came off that. It is 20+X for the money that is invested. I do not see why there is not that same opportunity in tech. It is not government led—it is

de-risked by government; it is supported by government. I think that is the key. If no-one comes to your door and says, "Yes, I'd like to go in partnership to try and make this happen", then it should not go forward.

Mr Strharsky: I do think that we also need to pay attention to investing in the capacity to create those kinds of opportunities, and government is very good at, I think, filling some gaps where private industry does not because the direct returns on that capital do not necessarily make sense. That is in the space of things like making sure that STEM training is up to an international standard and that we have the flow of talented people into these kinds of opportunities and that we articulate the fact that there are opportunities to lead tech businesses in WA, and in that early stage of a funnel to make sure that the opportunity is here and that those entrepreneurs do not go off to where the opportunity is in another state or overseas. I think that early stage of the funnel is probably where government can make the most positive impact.

Mr T.K. WALDRON: How much venture support would you get from some of the majors like BHP and Rio?

Mr Strharsky: Ask me that question in a year's time! Are you talking about capital to invest in those companies, to take them on their growth stage and share equity?

Mr T.K. WALDRON: Why are you saying "in a year's time"? Is that because of the situation at the moment generally or —

Mr Strharsky: Only because we have started to have those conversations and I do not yet have the answer for you. We piloted that technology accelerator program with just one company out of the operating cash in our business, and the challenge for us now is to figure out how to do that at scale. So, how do we go from that to 10 to 12 opportunities like that? We have certainly created the pipeline, with 100 quality teams and prototypes last year and more coming this year. The question is: who are the right partners to fund the operational costs and the capital costs of taking some of those opportunities through the accelerator program in 2016 and beyond? We are beginning to have conversations with tier 1 companies about their appetite for doing corporate venturing but —

[2.30 pm]

Mr Prickett: There is not much of a history here with that specific idea. They like to get together and fund big projects. A lot of it goes into the research. I think it would be great to see that move into the commercialisation as well. Long term, especially right now, is a great time. They are not as focused on the IP. They need to take ownership of the productivity gains, so they just need to be buying and getting products that are well managed from service companies, from METS. They can come in, deliver a product, save you money and they get their proper return in making sure that they own it and that product gets better over time.

The CHAIR: Do you have any opinion about infrastructure-like technology parks?

Mr F.M. LOGAN: Is that too far up the food chain for you?

Mr Prickett: No. Technology parks are going to be great for universities in doing science and doing lots of good science together; we need to do more science together. When you get to the commercialisation phase, it is much more important that you are against and with the client, and you are right against the coalface. So you are testing and developing, testing and developing, right in the same phase. That is important for our guys, and where we are based is on the terrace or in West Perth, so you can take that five-minute meeting and you can walk down and make sure it happens instantaneously. I think that is more important on the commercialisation phase.

Mr Strharsky: As well as proximity to others doing technology innovation. Co-location of innovators in a critically dense area is really important to creating serendipitous outcomes, like, "Oh, you've built that for a particular application; it might apply to the challenge that I have seen over here in a completely different industry." That does not happen if people are isolated in spaces

where they do not have access to decision-makers and markets and to other people who are doing stuff with technology. Because of our isolation from other population hubs, I think we have to be particularly careful about doing this kind of thing where there is a density of people to support.

Mr Prickett: The other point I make, too, is that I do not think building buildings is the best return. I think you can take that same money, you can put it into services and you can put it into activities and you can put it into building platforms around LNG 18 and all kinds of different things, where you are going to get a better long-term return than a building. A building is not going to increase your innovation capability. It is the people and the activities that happen inside that really do it. So, go and support those.

Mr T.K. WALDRON: Is that a bit like creating a good environment where people want to come, so you get the best people to help take that forward?

Mr Prickett: Correct, and it is around how do you create that environment. Most of the time, it is not going to be by building a new complex sort of stuff—most of the time.

Mr F.M. LOGAN: On that basis, I talked earlier about the number of people who are associated with the resources sector, whether they be fabricators, METS companies or engineers. There is a great opportunity here, given the fact that they have got time on their hands at the moment and they have the ability to go out and look at other things and speak to other people, whereas they did not have that before. Is there a role for government? How do you think we should approach it, to get those companies, or people from those companies, involved in hackathons? I mean, they have got time on their hands, they have a lot of knowledge, and they have a lot of equipment. They should be there anyway—they should be in the hackathons and the networks.

Mr Prickett: I think hackathons are one vehicle to do it, and we are not saying that we cover everything, because we do not.

Mr F.M. LOGAN: No; sure.

Mr Prickett: The innovator grant program that is done through WA—it is very small, it is 20K—you will be surprised at the long-term results of those, especially if you align the incentives correctly, as in you have somebody who has a demand or an issue, and you have somebody saying, "If I had that 20K, I can make sure I can at least get a prototype in the door and we can start to try that commercialisation process." More of those, more activities in that frame I think would support these people to really start to grab their ideas and get enough runway to get at least a well-developed prototype in, so you can test that money, and they can get off and—

Mr Strharsky: Zane is referring to the Innovation Vouchers program. One concern that we have about that is the government, in administering that program, has to have some way of evaluating the applications that come in, and if you think about it, that process of evaluating those applications is exactly the process that we run in our accelerator for choosing entrants. So, we are really doubling up on a task, where we are paying twice in Perth for understanding which opportunities make the most sense to fund at that stage. So perhaps there is a saving on the government's part in that particular program, by partnering with a private sector that is delivering that service already and that is probably better placed to know. That is one example of the kinds of potential synergies between government funding programs to de-risk that early stage of the funnel and the private sector's ability to better deliver a service. Perhaps there are others, but that is one that we are aware of.

Mr F.M. LOGAN: That is a very good point.

Mr T.K. WALDRON: How do we measure up in WA, do you think, as opposed to other states and other countries? I have heard some stuff about Finland —

Mr Strharsky: Do you want an honest answer?

Mr T.K. WALDRON: Definitely. Remember to tone it down!

Mr F.M. LOGAN: Go on; be blunt!

Mr Prickett: I think we are well behind the curve. I think we have ridden a really good industry wave and we have built some amazing service companies but we have not really built the technology and commercialisation activity that we need to. We are well behind, to be frank. We have done activities in Australia throughout the different cities. The funding and more consumer-based start-ups are going to be very difficult to manage here; they are going to do much better in Sydney and Melbourne. Even in the resource space, Brisbane has a much better infrastructure. I think that is because they have coal and that is tough and so they constantly had to innovate. They also built quite a few of these kind of commercialisation activities.

Mr F.M. LOGAN: They did, through the SmartStack.

Mr Prickett: Yes. They have great universities, but then they built the right commercialisation platforms so that they could get those techs out and push them into the industry better. I think Perth has an amazing potential, like amazing, amazing potential, specifically in the resource space, the 50-plus mineral types, the major, major projects that are going here, that are going to go into production, and then all of that potential to go global—super easy, especially with the connections into Africa and so on. You just have to get the platform right.

Mr Strharsky: If I can pick up on and reiterate what Zane says, you asked about where we stand compared to other states and internationally, and I think that Zane is exactly right—we are behind. But I share his enthusiasm for the unique opportunity that we have got. If that is one thing that we could reiterate, it is making sure that we focus in Western Australia on what our unique competitive advantages are. If we wanted to catch up or do better, it is important that we do not copy wholesale from other ecosystems, because we should figure out what works well elsewhere, borrow what works, but apply it to a unique Western Australian context. I want to share with you this particular chart, which is now my favourite chart. This comes from the latest draft report from StartupWA, whom I am aware you heard from earlier today. This is a chart showing the contribution by industry to the state's GDP, offset against the number of start-ups that are forming to address opportunities in those industries. This is the single best way, in a graphic fashion, to illustrate what Unearthed is about. That chart shows an inverse correlation. That means that at the top of the list, you see the resources and construction sectors of our economy, which are the backbones of the Western Australian economy, and you see a small proportion of technology start-ups forming to address opportunities in those sectors. That is why we are doing Unearthed, flipping that chart. That is what we think are some of the greatest opportunities for the state in directing its innovation potential. There are others, and clearly we are biased because that is the one that we are focusing on, but I think it is important that we acknowledge the unique opportunities that we have when we compare against other economies and what they are doing in the innovation space.

Mr Prickett: Being a fast follower in the innovation space is going to be difficult—focus on where the strengths are and try and lead in that. We obviously feel that there is resource and tourism, and there are other spaces here, that can go well. I do not think the next big consumer social media blah is ever going to come out of Perth, to be honest.

Mr Strharsky: If it does, it might happen in isolation.

Mr Prickett: And then it will move very quickly over to Silicon Valley!

Mr T.K. WALDRON: What you guys are sort of saying is that state government does need to have a real focus in this area and look at others, like we saw in Queensland, but do not say we are going to do that—look at the strong points and then work it out to suit our own circumstances.

Mr Prickett: Correct, and look at the programs that work; go back and see what their rate of returns are on the programs that work. It is not going to be the government leading. It is not going to be the government accelerator. Do not go and compete. You want to create, especially on the innovation funnel. You want to create the activities and the support at the beginning of the funnel. How do you

get more ideas kicked off, because it is a numbers game in the beginning? How do you get more people interested in innovation, entrepreneurship, science and technology? That is what matters. The big companies out here, there is no need to support them. There is enough capital in the market to be able to create that out. That first couple of stages is where you can create the activities and the platforms and the services to make sure that you can then generate those future big companies. That is key. It is: how do you create that ecosystem, that platform?

Mr F.M. LOGAN: Interestingly enough, as you would be aware, the software programs for mining, 60 per cent of the Globe Software programs are written here in Western Australia.

Mr Prickett: AcQuire came out of—Bill Withers is fantastic, a great entrepreneur. They are doing amazing work. That was done mid-90s, where it was really these kinds of mid-tier—not big guys—and these local software guys that were just coming together and saying, "Well, what do you need? Let us start building this out and then let us start delivering that global." We are at the second stage of these technologies, so that was kind of the desktop, what you used to have on servers, and now it is going into the cloud, it is going mobile, it is going IoT. It is great that we did that in the past. The next companies may not be the current ones. They may be as well, for sure, but how do you make sure that those future ones and those future activities can happen here and that you can build those future companies here?

Mr F.M. LOGAN: That was the question that I was going to ask. We have rested on our laurels of saying, "Look how smart we are; we are a world leader in writing software for mining." But that was then. What are we going to do now?

Mr Strharsky: Yes, absolutely. The good and bad news is that those software products are starting to smell. The good news is that we got entrepreneurial leaders like Bill Withers who are around and interested in giving advice and support to the next generation of entrepreneurs, and in some cases providing capital for their ventures when the opportunity is big enough. As a state, what we have to focus on, as Zane was suggesting earlier, is making sure that we can cross that gap towards making it attractive for entrepreneurs who have made it, like Bill Withers, to personally invest, and not only invest capital but invest brand and connections—what we call smart money—in assisting those entrepreneurs to go to the next level. Our feeling and our time and effort and money are behind the notion that part of the way to get there is to build a technology accelerator focused on those opportunities whose sole purpose is to do that—to fill that gap between great idea and smart team and commercially available product that has got some first rhythm.

The CHAIR: I get the mining thing. How about gas?

Mr Prickett: We are resources focused, so that is across the resource spectrum, including gas. You going to find there are those next future technology companies that are coming right now to service LNG broadly, and they can easily come out of here.

Mr Strharsky: We will be working with Woodside at a hackathon that is going to take place before the LNG 18 conference. Our methodology is applicable to all of those industries. What is key is: where do we have here in Western Australia the right talent and assets to markets? Gas, absolutely; mining, absolutely; we also think perhaps in renewables and a few other sectors. As an illustration of how those technologies as they begin to mature can cross those verticals, Newton Labs, which we spoke about earlier, their technology for vibration analysis is receiving interest outside of mining, because it turns out that those kinds of problems can be generalised to any type of material that flows and that you want to facilitate flowing. So even in manufacturing when you are filling small bottles of pills or something like that, you can encounter the same problems.

[2.45 pm]

I think it is very easy for people to get lost in feeling like the opportunities that we have here are very narrow, without understanding that in some cases, a technology business starts and gets traction—that is, gets early success—by focusing on a narrow market opportunity, but that takes

them into the capacity to address all kinds of opportunities. Newton Labs is a fantastic example of that. They will not be confined to customers in the mining space. If they can get after the opportunity they have in front of them, it will take them into markets overseas, creating export opportunities, and into other verticals besides mining.

The CHAIR: Just going back to the gas one, the fundamental difference between miners and gas is that there are lots of little mining companies, but there is literally a handful of huge gas companies. We looked at this in Norway the year before last, where the Norwegians are quite successful in creating new companies to service the oil and gas sector but now find continuously that people just come in and buy the company.

Mr Prickett: But that is not bad, to be in 100 per cent. If you look at the Israeli start-up scene and how that went, it was creating these kind of small, really interesting tech products, and they would get sold for five, 10, or 20 million, but that generated capital locally, they then started investing and then growing, and now they have billion dollar-plus companies that they can manage. I think Norway is a good example, for five million people, for that size, and their resource industry. There are over 42 Norwegian companies in WA. Tieto is a great example that we talked about, where Statoil needed to track their resources better for accounting purposes, so they moved to university and got an algorithm, took it inside and went, "Whoops! We can't! The next version of Microsoft! What are we going to do?" So they pushed it out to its own company and allowed it to grow and build, and now it is global. It manages all the hydrocarbon accounting for every single company on the terrace, except for Apache. That is a bit older; I am not sure where that is right now. But for that kind of activity and that platform, you need to try to come out and build.

Mr Strharsky: I take your point about the gas industry, especially about the local operators being different from the mining industry. Part of our responsibility is to look at the mega trends in technology that are affecting all kinds of industries and being able to understand how you create capacity there. The gas industry has the same need for gas scientists that the mining industry has. The question for start-up companies is do they have a market opportunity that is big enough to build a company around, and in many cases they may serve both sectors in order to be able to have a market opportunity that is big enough. If there are only three or four global gas operators that are buying that product, you may have the capacity to modify their offering so that it can work for mining or something else.

What we are encouraged about in Western Australia is that the supply chain of both mining and oil and gas often provides solutions to both. So, WorleyParsons has a technology manager, with whom we have great conversations about exactly this, and they are looking for the next technology companies, and in fact it is his job to make sure that he is not going to miss the opportunity, because there is a company out there somewhere that is going to eat his lunch if he is not careful and that is going to build a product or service that will compete with his service offering. It is in his interest to be involved in programs like we offer so that he can spot those, help them grow, cost effectively proving up the opportunity, and then perhaps take an equity position or acquire that company. WorleyParsons is in the business of serving both oil and gas and mining companies. So, we are fortunate to have that supply chain opportunity here to create opportunities for new technology.

Mr F.M. LOGAN: You did say that you were going to do a hackathon for LNG.

Mr Strharsky: That is correct.

Mr F.M. LOGAN: Did you get the same offer do one for the AOG—the oil and gas?

Mr Strharsky: I suppose the answer is yes. We had some discussion around what would make the right dates and what would produce the best results for both our industry partners and our entrepreneurs, and that is why we ended up with both.

Mr F.M. LOGAN: What about Africa Down Under and the conferences they have?

Mr Strharsky: I am not aware of —

Mr F.M. LOGAN: That would be a great platform.

Mr Strharsky: Yes. That is specifically related to Australian and US companies and their presence in the African market.

Mr F.M. LOGAN: In Africa, yes, which is getting bigger and bigger all the time, the conferences themselves.

Mr Prickett: I actually know one of the persons who helps run that, so I will go and contact him.

Mr F.M. LOGAN: We would be happy to get introductions to the right person!

The CHAIR: Thank you for your evidence before the committee today. A transcript of this hearing will be forwarded to you for correction of minor errors. Any such corrections must be made and the transcript returned within 10 days from the date of the letter attached to the transcript. If the transcript is not returned within this period, it will be deemed to be correct. New material cannot be added via these corrections and the sense of your evidence cannot be altered. Should you wish to provide additional information or elaborate on particular points, please include a supplementary submission for the committee's consideration when you return your corrected transcript of evidence. Thank you very much for your time today.

Hearing concluded at 2.50 pm

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