ECONOMICS AND INDUSTRY STANDING COMMITTEE

INQUIRY INTO TECHNOLOGICAL AND SERVICE INNOVATION IN WESTERN AUSTRALIA

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
FRIDAY, 12 FEBRUARY 2016

SESSION FOUR

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 12.07 pm

Professor GRAEME WRIGHT
Deputy Vice-Chancellor, Research, Curtin University, examined:

Mr ROHAN JOHN McDOUGALL
Director, IP Commercialisation, Curtin University, 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 has been 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. With me is the deputy chair, Hon Fran Logan, and Hon Terry Waldron and Peter Tinley. The Economics and Industry Standing Committee is a committee of the Legislative Assembly of the Parliament of Western Australia. This hearing is a formal procedure of the Parliament and therefore commands the same respect as is 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's 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, we have.

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.

[12.10 pm]

The CHAIR: We have some questions for you, but before we get to them would you like to make an opening statement?

Prof. Wright: Not specifically; we had the opportunity to meet with some members of the committee late last year. I think we had a very good understanding of the overview of what the committee is looking at and certainly appreciate the opportunity to attend today. The comment I would make overall is that I consider that Curtin University is very active in the areas that impact the areas of interest for this committee and I certainly welcome the opportunity to be here and to converse with you. I am not sure, Rohan, whether there is anything you want to say.

Mr McDougall: It is an exciting time in this sector at the moment. A lot of attention is being paid to technology innovation. It is a good opportunity to review what is going on in this state. We have

some good ideas and programs running and working with others to build critical mass in the area is something we are very interested to do.

Mr F.M. LOGAN: In your submission you emphasise the significance of the square kilometre array and the Cisco Internet of Everything Innovation Centre. From my former role I am aware of the supercomputing power that now exists adjunct to your university. This comes back to probably your role: how do you think we can leverage the investment that has been made in supercomputing and Cisco's investment? How do we leverage that to either get spin-offs out of that investment or attract more companies to Western Australia, particularly to Technology Park, to ally and network with what is happening around that supercomputing power, given that it is going to be, ultimately, the most powerful supercomputer in the world?
<017> O/D 12:12:06 PM

Prof. Wright: Rohan, do you want to lead off?

Mr McDougall: I am certainly happy to. That project, because of its scale, has attracted a lot of attention, and I think the Cisco centre is probably an example of large corporate interest being involved in that project from a supplier perspective. Others have come to Western Australia to pitch for work around the SKA and as a result have started to pay attention to this market from a technology perspective. I think it has got advantages of attracting talent to Western Australia, so people who are involved in the project specifically, who are highly skilled people, who probably will come and may not necessarily stay with that project but may live here and take opportunities to set up companies or be involved in industry in Western Australia in other areas. I think that is an advantage that is probably going to happen without encouraging it, just by the very nature of the project. It does attract people's attention—for example, entrepreneurs. We have a person, an innovator in residence; his name is Bill Tai. He is a Silicon Valley–based investor. He heard about the project; he is very interested in it, loves the idea of that capacity and wanted to understand whether there was potential to open up capacity of the supercomputer for entrepreneurs to use it—use the storage that is available, use the processing power. The reality of that, though, I think, is that the processing power in that supercomputer is very specific to a task, and there are probably not that many companies that are at a scale that are going to be able to use that processing capacity. There are some, but it is probably not going to be widely used or adopted. I think probably the halo effect of it is perhaps more or greater than the use of that computer—the things that I talked about: attracting talent, attracting interest from corporates, attracting entrepreneurial interests. Another example is next week we are actually hosting a master class for entrepreneurs at the Pawsey centre and we are drawing on Bill's network. There are people coming out from Silicon Valley. They are going to pitch and talk about the businesses that they have grown—how you grow teams, how you scale products, how you build audiences for your products. They want to come, they want to check out the computer, they want to get a tour, but at the same time they are going to convey some information to some local entrepreneurs. So using it as an attracter and as a focal point, I think, has an advantage. There will be technology that will spin out of that. It is hard to predict what that might be, but just the scale of the data that is going to be coming through that centre, you are going to need new technology in analytics, you are going to need new technology in data transfer. People are going to come up with things; we just do not know what they are yet. There is a lot of work that has gone into making sure that there is an awareness of intellectual property in that centre and that it is handled appropriately. I think there is a lot of that infrastructure in place to take full advantage of it already. We could probably promote it a little more as far as how significant it is internationally.

Prof. Wright: I see what Rohan is describing there as a downstream component of that in terms of the attractant and then entrepreneurial activity associated with that. The upstream component, which is around more of the fundamental science—this is SKA in particular—I think what I draw on here is the very interesting relationship now between SKA science and, as you mentioned, Fran, the Cisco Internet of Everything Innovation Centre. The Cisco centre is about being right on the leading

edge of the science and industry interface. Their objective is how Cisco can help attract researchers and industry into the one area that will, through their interaction and activity, produce something that can quite rapidly go out into the marketplace. It is really at that innovation boundary. But the interesting thing for me is that when we started talking to Cisco, who do they want as partners? What areas did they see as fundamental? There were three. There was oil and gas, and I think around data analytics and efficiency of oil and gas processing and Western Australia being an LNG region and so on. I fully understand that. Then there was agriculture—smart agriculture. They wanted to know about that—how to sensor up, if you like, or put massive numbers of sensors in, bring those into the agricultural sphere in order to try to improve yields, productivity, timeliness and management of the activity. But I think the unusual one is that they wanted SKA in there, so radioastronomy, which is in the news today—that is purely coincidental, but I am sure you have heard about it earlier today from some of our colleagues. That is very fundamental science. But Cisco in particular saw the opportunity to take the principles and outcomes of fundamental science, and the building of the SKA, bring it into the centre and then push that as close as possible to that research and industry interface, and an integral part of that, of course, is Pawsey, because without Pawsey we do not have the precursor to the SKA, which is the MWA—Murchison Widefield Array—and without the precursors we do not get the whole thing of the SKA based in Western Australia. I think there are a number of aspects to that that are really interesting, and, unusually, it embraces that fundamental science and then also that industry-led innovation as well.

Mr F.M. LOGAN: Graeme and Rohan, what role is there, if any, for the state government in terms of assisting in maximising the value of that investment and also to the benefit of further industrial development in Western Australia and further job creation, however it happens—the spinoffs or attracting companies or whatever? Is there a role? For example, one of the things I put to people earlier about the Pawsey centre and supercomputing is that there are very few people in Parliament know about that, never mind the general public, and it is unfortunate. That is just the way it is at the moment, and that comes back to the issue of promoting what we have here. We are very good at hiding things under a bushel.
<018> H/3 12:19:28 PM

[12.20 pm]

Prof. Wright: The state government has already played a significant role in getting to where we are at the moment, and there are a number of elements to that. It is the involvement in the development of Pawsey itself; it is recent allocations to the support of Pawsey over the next few years. Unfortunately, these things have to be replaced on a regular basis, so there is that sort of thing in the future as well. On the flip side, there is the support for the International Centre for Radio Astronomy Research, which has come from the state government, and of course the university is a key partner in that in terms of the contribution they make towards that as well as being the beneficiaries. Then there are the relationships that that activity pushes out or helps to develop with industry around the SKA project. I would not want us to get totally captured by Pawsey and SKA because there are other relationships. There is Pawsey and I talked about the Cisco Internet of Everything Innovation Centre in terms of its relationship with Woodside. So there is Pawsey and Woodside or Pawsey and the natural resources area. Part of that will be things like data analytics associated with Woodside and LNG processing and other things. There is also serious activity that has been allocated in the geosciences area. Part of that could be in the LNG area. We have made a recent appointment, who is arriving almost any day, in the area of computational geoscience specifically to try to bring world-class skills to bear on the BGS science questions that we probably have not even thought about at this stage. This particular person is what is called a highly sighted researcher. He is world renowned for the work that he has done.

What can the state government do? I have tried to give examples of what the state government has already done, both from an infrastructure point of view around Pawsey and also from a direct investment point of view into the ICRAR program. I think in facilitating the interactions between

universities and CSIRO and industry, that is again an area where the state government can play a role.

Mr McDougall: I think there is a role as well in that sort of advocacy and patronage, so making people aware of what is going on there and what are the opportunities for smaller early stage tech businesses to engage with that facility. They are going to be quite specific. One of the reasons we are getting good interest from the master class we are running, for example, is people do not really know; they know there is a super community there, they know a little bit about the SKA. They do not really know what that means or what is the opportunity for a business to access that facility, if at all.

Mr F.M. LOGAN: I will give you an example. One of the areas that we are very good at here, and of course it is still not very well known, is about the building of super-fast not only ferries but super-fast super yachts, which we manufacture quite a few and still are manufacturing quite a few, which relies on a lot of computing power to analyse the dynamics of both water and the ships themselves, beyond the computing power that they have got in their own companies. Of course that interaction would be superb for taking a lead in marine design.

Mr McDougall: There has been some engagement with Bombora Wave, doing wave modelling using the supercomputing facility in collaboration with an academic start-up group at Curtin. There are those examples where you have used that capacity to build analysis.

Prof. Wright: I think that is a really good point because often individual researchers or research groups and industry will set up their own infrastructure—that is, computing infrastructure in this case—to do what they think they need to do but because of limitations on investment capability and also capability to run those types of activities, they may well be limited in terms of the outcomes. Rohan talked about Pawsey and the Cisco centre as being magnets to attract the right sorts of people together. I see absolutely Pawsey is able to help us scale up those types of activities but also act as a magnet and actually get people interacting together that would not normally have interacted because they would either be working down at Henderson or they might be working in Bentley or Nedlands or wherever.

Mr T.K. WALDRON: You talked about the new chap you have got coming and about attracting people et cetera. We were in Queensland and saw the Smart State program they had under Beattie et cetera. Part of it was very much about getting those good people here. Do you think the state should not have an exact copy of Smart State but should be looking at doing something similar to that to get a focus on getting those people back and driving further innovation?

Prof. Wright: I am happy to have a first go at that. Western Australia has had programs like that in the past. I would be silly not to say of course that I would applaud the opportunity to play a role in those sorts of programs in the future. In recent times the level of support for that in Queensland went into the doldrums for a little while and they are reinvesting now but at a lower level. To have access to those sorts of programs of course would be highly beneficial. I put on the table, as I have with our colleague who is arriving, Professor Victor Carlo, a joint approach between Curtin and CSIRO here in Perth. We have invested not only in the appointment of this senior researcher, but also in five post-doctoral fellows to support that person's research plus PhD students. If it was just one person, that is significant but this is bringing in a significant team, and not all of them actually are coming from overseas. There will be some people employed from the local pool who can play into this area of research. We are voting with our feet. We think we understand what we need to do now in order to build for the future so that we can have the capability in this state that will deliver the outcomes that we are looking for. We are having to find that from the available resources, which is these joint appointments between Curtin and CSIRO. Of course we are looking for partners, and be it government or industry or CSIRO, other publicly-funded research providers or universities, we are very happy to do that. I understand that there is a Premier's fellow in agriculture scheme to be launched—I think it is today actually, if it is not up on the website already. What underpins that is

a requirement that the appointee in this case will be a joint appointment between at least two universities. That sort of collaboration is fundamentally important into the future.

Mr T.K. WALDRON: Just briefly, you mentioned industry there—working with the industry. That is one of the things that has come through about academia working with industry. We had the iPREP people in. I think that is a great program. How do you see your uni interacting with industry and your students going into industry? Do you have any specific programs with that? How do you interact with industry? Is it a bit of a focus of yours now?

Prof. Wright: It is a huge focus on a number of levels. You mentioned students. We have a very significant aim around work-integrated learning. This is to give workplace experiences for undergraduate and also postgraduate students.

Mr T.K. WALDRON: And that links you with industry by doing that and they get the benefit as well.

Prof. Wright: Correct. That can be in various forms. It can actually be industry coming into the university and exposing students or it can be students actually going into the workplace and getting that industry exposure. I did not want to focus totally on research but we also have joint appointments with industry—Woodside, Chevron and also international players in specific areas of interest.

Mr T.K. WALDRON: What about SMEs? That gets a bit harder.

Mr McDougall: Just returning to your other point about access to local management expertise really in the technology sector, that is a limitation that we have. Trying to attract people back I think is important. We find that people do come back to WA for lifestyle reasons. Keeping a connection with them when they are away and maintaining that link is something that I think is worth doing and it is done on a national level with organisations such as Advance but perhaps there is an opportunity for Western Australia to do more in that area to identify people who have lived here, who have moved overseas and developed specific expertise in the technology sector and are looking to come back for family reasons. A lot of them do. We tap into them as far as a management for some of our start-ups, for example. People come here because it is a good place to live. I think the state government can do a lot of things around that to continue to make it a good place to live.
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In terms of engagement with SMEs, we need to have a number of programs. We are finding now with students that there is a lot more interest in entrepreneurship types of activities, so we run an accelerator program, for example. It is where students can come in with a business concept. They get 10 weeks of structured mentoring about how to develop that concept. We give them $5 000 seed funding, they get co-working space at a Curtin venue and we introduce them to our network of people who can help them develop their businesses. That is about developing their own businesses as opposed to engaging with SMEs. We do see engagement on the research level with SMEs. They usually come in with a specific problem they have that they are not able to answer themselves technically, and we always try and direct them to programs that are available to help with that. There are federal programs such as Research Connections, for example, that provides funding for answering technical problems for small businesses. What we find a lot is that small businesses do not necessarily have the resources to engage with universities. It takes time to devote to a new project, outside of your core focus of selling product, so it is sometimes difficult for small businesses to find that sort of attention.

[12.30 pm]

The CHAIR: is your relationship with CSIRO building? Are you happy with the way that is going?

Prof. Wright: I am sure Rohan will have a view from his own area of work. From, I guess, the university level and particularly around research, we are very happy with the way that is building and that is not to say that it has not been good in the past; in fact, it has been very good in the past

and I would say it has improved substantially within the last five years. Part of that, I think, interestingly enough, is that as CSIRO has had some more significant constraints, especially budgetary constraints placed upon them, I think they have become more outward looking and that has been to our benefit. I think we have also changed. We are much more amenable to working with significant partners and we see the value of that. I think this chair in computational geoscience is a classic example of that. Ten years ago I do not think we would have thought of that. We would have all each been going in our own way trying to address that. In recent times we have recognised that we can get a much better outcome by working together. SKA is an area where we also work very closely with CSIRO.

Mr McDougall: Their role is going to be interesting. As the innovation platform rolls out with the federal government—because the statement last year really put them in a position where they seem to be the go-to group for the federal government, as far as a lot of the innovation programs go. For example, they have their own internal accelerator program about encouraging staff of CSIRO to develop business concepts based on technology through the CSIRO. They have been charged to roll that out to universities around Australia and I met with someone about a week ago who said, "We're interested in rolling it out regionally. We want to find a place in Western Australia to do it. Where is the best place for us to connect to?" State government could potentially facilitate a role in a relationship with CSIRO there and then feed that into the different university groups. They have also got an innovation fund, which is a few hundred million dollar fund that they have also been told should be open to other technology institutions, so universities and other participants can access that fund. They are looking at a pipeline of development where it is about identifying opportunities within public sector research and trying to package those in a way that is more commercially recognisable from an investment perspective, through accelerator programs, then pitching those to seed funding programs, like the Innovation Fund, to get that initial amount of money that then enables commercial proof of concept, prototyping, pilot trialling, to a point where you can actually get a product that might be released in a market, and then you can get commercial funding for it.

Prof. Wright: Rohan mentioned CSIRO rolling something out regionally; of course, when you are based in Canberra, it is regional. It is a matter of definition.

Mr P.C. TINLEY: In your submission you made a point about innovation vouchers and the impact they are having. If that is the case, what would you recommend would be a better way? Because other jurisdictions use them. They seem to be around and Catapult Systems uses it. What is wrong with ours and what can make it better?

Mr McDougall: I have been on the consideration committee for the vouchers and seen the level of applications you get, which is quite high, and the amount of funds that is devoted towards the program, which is quite low, so what ends up happening is that the vouchers are given to organisations that put the best submissions forward and they are usually more advanced organisations and 20 grand is not material to their operations; it is not going to make an impact on what they do. The amount of money is not sufficient, when applied in that way, to really make an impact. I think you could probably better spend that money on a more targeted focus program, like, for example, collaboration with CSIRO on an accelerator program. You put in, for example, a voucher which is matched by CSIRO as seed funding for an accelerated team that can develop their business concept for an earlier stage, where that level of money is going to make much more of an impact than it is at a more advanced stage. I think if you are talking about $20 000, then it is probably looking at trying to develop things at earlier stages where you are going to make more impact. If it is a later stage, you need more money.

Mr P.C. TINLEY: This is a follow up, but when we apply this broader approach that was mentioned, that innovation is not necessarily about invention. It might be about an improvement.

Mr McDougall: Yes. It is application of invention.

Mr P.C. TINLEY: It seems to me—you already talked about SMEs—there is a small balance sheet and limited capacity to actually engage. They look at universities, let alone the CSIRO as an amorphous blob, and do not know how to access it and so a pathfinder role is particularly important in that. Do innovation vouchers not attend to that, or do they just seem to be —

Mr McDougall: I think they get lost in the mass.

Mr P.C. TINLEY: Does there have to be a widget or a new thing?

Mr McDougall: I think there are other sources of funding to help businesses at that stage, so you have got Research Connections and Enterprise Connect follow-on programs. You can get smaller lots of money through those programs. I just do not think you are getting bang for your buck with that program, as far as impact. In my view, it is a program that looks like something is being done without anything really being done.

Prof. Wright: We talk about SMEs. The definition of an SME, I think, is 200 or less employees. In the context of Western Australia, I would think most of our SMEs are much, much smaller than that, and I think the ability of that sized organisation to effectively compete and therefore access that type of process may actually be quite limited.

Mr McDougall: If you are talking about a limited amount of resources, I personally believe you can spend that money better.

Mr P.C. TINLEY: Either you impact by dollars or impact by where you apply it. I also see this Small Business Development Corporation, and you have got an incubator or are out there for small business. Does that dovetail at all with what SBDC does?

Mr McDougall: I do not have a lot of interaction with SBDC other than I know that they supported, for example, the ignition program that was run by Curtin, which is again, a business concept development program of five week intensive tools to how you develop a tech-based business and I know SBDC supported that. I think there is a role for state government in having a focal point for that business concept development role and this accelerator role that I talked about where you can build critical mass. Instead of universities doing them themselves, perhaps everyone who is devoting resources towards this, like CSIRO, the universities and state government, with a bit of seeding could build a much more comprehensive program that is going to deliver more impact by combining funding, networks and space into one location.

Mr P.C. TINLEY: Clustering better.

Mr McDougall: Yes, exactly. One of the disadvantages we have in WA is that it is an isolated market; it is a reasonably small market, except in particular focus areas. You have got to work together to really build scale. I suppose my advice for further funding, like the vouchers program is that money like that would be better used to try and act in a facilitator role to bring together others who are contributing resources so you get leverage for your investment.

Mr P.C. TINLEY: It seems to me that a lot of this work—obviously we have focused on where the state government can play and participate and provide a level of support—is a limited size chequebook, but not without capacity, in terms of other resources it can bring to bear. Do you have any commentary around the value of properly aggregated science strategy directed by a science council or a representative body that has a directive control, not an advisory control, or do you think it should just be advisory?
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[12.40 pm]

Prof. Wright: An interesting question. I think there is a very wide range of players in the whole science and research area, so I think having a directive role needs to be looked at quite closely. I guess I would question that fundamentally. However, it would depend what we mean by that. To have a well-constituted science council, for want of a better name, that provides direction and

commissions some work—I think we are seeing the outcome of that in Western Australia now—in terms of where the opportunities lie and where the critical mass might be for this particular state. Then the articulation of a science plan, as we now have, which was released last year, I think is a very good thing to do. I think that is something that has been largely absent over the last five to seven years. Is the science plan we have at the moment the best? Is it going to deliver the optimum outcomes over the next 10 years? It is an open question, but at least we have the five areas that have been identified where, as support becomes available from wherever that support comes from, it will be directed in those areas. I think that gives good indications to other players beside state government about where the focus is and where resources perhaps should be directed in order to most likely give the best outcomes. As I said, about being directive, I have a question mark, but you can have significant impact by doing it in different ways—by providing clear direction and objectives.

Mr P.C. TINLEY: Just as a front end to that imprecise question of mine—I am sorry—was this idea about a unified strategy? Do you sense that we are lacking in a statewide science strategy or a research or an innovation strategy, whichever way you want to describe it?

Prof. Wright: I think Rohan will have something to say there. An innovation strategy would be seen to be much broader than the now science strategy at the moment. That is not a criticism of the science strategy. A science strategy is about, I think, the core science. It has gone some significant way, actually, in terms of not just looking at the core science, but looking at the interface with industry. If you take the marine science area for example, yes, we could have focused, as a state, entirely on marine science components and looked at the fundamental aspects of it, but no, the strategy itself looks at that, but it also says where we undertake our marine science activity, where we put our resources under this strategy, what is the interface with industry? What impact can industry have on the strategy and what impact will the strategy have on industry? Of course, this is where there has been substantial focus in the Kimberley because of the resources.

Mr P.C. TINLEY: I imagine you would say the same about agricultural research or agricultural science because it has to engage with industry at some point.

Prof. Wright: Absolutely.

Mr P.C. TINLEY: There is a natural connection there.

Prof. Wright: The biodiversity one, it is newer; it is less precise. At the moment, we can certainly see the interfaces there in a number of ways. With the mining industry, for example, there is quite a bit of work being undertaken around biodiversity, in fact, with the mining industry and partially funded by that.

Mr P.C. TINLEY: The other one is that we often talk about innovation in science and, funnily enough, when we are going through the economic trough that we are heading into, innovation becomes the new buzzword. The evidence we have received so far is that we have to have a sustained approach to this and that is why strategy is important; it has got to survive changes of administration and well into a time horizon that goes out beyond the normal political cycle. That becomes a real challenge for us, but at some point, as a small jurisdiction, as Rohan said, do we have to describe success? At what point do we say, and can we say, that we are not a resource state, we are innovation jurisdiction; or is that even valid? How do we measure success? Oddly enough, we should ask a science question with a science question.

Mr McDougall: With the KPIs, the kinds of things that we talk about in commercialising technology from the university are: income associated with those activities, of course—how much money are you generating; current investment—what level of current investment have you attracted as a result of the work that you are doing; how many people are being employed by the companies that you are setting up; what are their levels of sales—what is the revenue generated? They are the things, of course, we do in a normal economic analysis. I think you probably have to look at those

as markers of what you measure as success. I think with the technology sector, if you are talking about it being outside of minerals and oil and gas—I would not make that distinction personally, because a lot of tech goes into those industries, of course. For it to be a more diverse economy, you have got to look at those measures and see how the businesses that are developed meet those measures. There are big companies here like iiNet and Amcom that have shown that you can grow a fairly significant business focused on the tech sector in WA—more of those.

Prof. Wright: A very brief comment. I think the sort of example that Rohan gave there is important in that that might, in answering your question, represent success, but as soon as one achieves that level of success, a healthy company or organisation says, "So what do we do next?" That is state-based success. What can we do nationally? I do not see there is an end point where we can sit back and say we have been successful. We might have been successful at that stage, but then that will open up naturally new opportunities that we will want to chase.

Mr P.C. TINLEY: Success breeds success, yes.

Prof. Wright: Yes, correct.

The CHAIR: The trade-off between the amount of funds in a commercialisation grant and the administrative burden that comes with it and how you pay for that —

Mr McDougall: Are you talking about state programs or federal programs or both, or just a general indication?

The CHAIR: Just general.

Mr McDougall: There is a reasonable amount of work that goes into submitting those sorts of applications. I think for some of them, for the reward at the end, the administrative burden is probably a higher percentage than you would ideally like to see. We have sort of come to the view that that is the reality. If you want the money, you put in the time. If there are no other sources of capital, you cannot have really much choice to pursue it. One thing I would totally agree with is consistency in programs. There is nothing more frustrating than continual changes to application forms and requirements. Ceasing your programs and restarting your programs can also be a big time waster. If you are going to set a program in place, try to maintain them; try and get the application form up and set it at the beginning, and maintain it for the duration of the program—try and maintain consistency in the program. It is not a state program but what we are seeing at a federal level is Commercialisation Australia translating to accelerating commercialisation and probably will change its name again at some point. In between changing names and reviewing the program you have these lull periods where there is no funding available, applications have to wait around. Essentially what happens is you relaunch under a new name and it is the same program.

The CHAIR: Yes, a different corporate logo.

Prof. Wright: If I could add something to that, as a university, we have made a conscious decision that we want to support those types of programs—that is, support the preparation of applications to go into them. I think the potential choke point here is actually for the SME component—very small, probably early-stage industry components where they are really stuck for capacity to provide input into those sorts of applications and proposals. There is a certain amount we can do to support them but any commitment by a start-up, for example, as a proportion of their total FTE is probably significant.
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[12.50 pm]

Mr McDougall: To follow on from that, I think if you look at your vouchers program—money well spent from that vouchers program if you are talking, say 10 to 20 grand is to have an SME to be able to access that to pay someone to write a grant for them if they are to access $500 to $1 million for a federal program. That is 20 grand pretty well spent.

The CHAIR: From the point of view of guidelines for state programs, apart from consistency, are there any other things? Obviously, the complexity of the form increases with the amount of money available, hopefully. In other words, it goes the other way as well; if it is not a huge amount of money.

Mr McDougall: It is fair that you ask reasonable questions in an application form and you understand exactly what people are going to use the money for. My personal view is that sometimes those forms can become repetitive in the questions they ask. They ask the same question a number of different ways, so you are trying to struggle to answer it in a different format. But that is, I think, the nature of who puts the applications together and perhaps not a clear understanding of the information they fundamentally require to make the assessment. Having gone through a number of these programs and assessed programs that we run ourselves, you can probably capture a pretty good idea of a program, its credibility and the potential for it to be successful in four or five questions. You do not need 20 or 30.

The CHAIR: The question of Technology Park has come up quite a lot. Of course, since you are its next door neighbour and own a fair chunk of it these days, what is your feeling about it?

Mr McDougall: Graeme can give the corporate Curtin feeling about it.

Prof. Wright: I was not expecting that.

Mr P.C. TINLEY: Can I add to that question; do you mind, without taking away from the intent of that question. You might also want to make commentary around the value of clustering or the value of hubs. That was a significant state investment and a lot of effort to get it done. To say something you cannot, it pretty much has not worked so far—might be the best thing you can say about it. Do you think it did not work because of its location or do you think those sorts of things when they are forced never work?

Prof. Wright: Far be for me to try to challenge all the good research that has been done by that one. I think there are lots of examples of where it has worked.

Mr P.C. TINLEY: Right; hence it started, yes.

Prof. Wright: It has, in one form or another, stood the test of time. There are some, maybe lots—I do not know, I am not a great student of technology parks and those sorts of clusters—that have not worked. From Curtin's perspective, it has been highly beneficial. But has it produced an optimum outcome? I do not think so, probably far from it. From our point of view—this is looking at the greater area, not just the Technology Park component itself as a core—for Curtin University to be sitting alongside CSIRO, Pawsey, DPaW and so on, that is a huge advantage so that clustering is significant and it is of great benefit. Of course, I have not mentioned any industry-based components there. That is where it has been less successful and, of course, I think that strikes to the core of what Technology Park was there for in the first place. It was not designed for Curtin University to put lots of things on site—to put some things on site, yes. We have got our SKA group sitting on the site in the old Rio Tinto building. We have got our Fuels and Energy Technology Institute, which you saw when you came and had a tour of the area. The Technology Park is exactly what is required for those types of activities but our interaction with the industry tenants and owners of Technology Park is much less than it could be.

Mr P.C. TINLEY: I am sorry; I did take over your question a bit.

The CHAIR: That is all right, I wanted to get a little bit of the history of Rio Tinto. They committed to build the building there and then they moved away, did they?

Prof. Wright: I am not a great student of that either. However, my understanding is yes they built a building there I think in the 80s. It was one of their global technology hubs from a research point of view. They vacated I think in the mid-90s. It lay vacant for a period of time and then Curtin bought it I think about 1999 or 2000 and we have since used it for a range of functions—now the

SKA as I said. If you look at Rio Tinto and how they have waxed and waned in how they have handled research, innovation and investment in that area, they have gone through a whole range of cycles. That one I have just described to you is very similar to one that has played out over the last eight years where they have had a high interest in establishing world technology centres. We had one at Curtin in sensing and materials in mining and now they have wound most of those back even before they hit some of the financial issues they have at the moment.

The CHAIR: I have a comment there, and it is purely a comment: it shows the value—my background is the agricultural sector—where one per cent levy is paid every year and that is all there is to it.

Mr McDougall: It makes it sustainable, yes.

The CHAIR: It means there is a base there all the time.

Prof. Wright: Correct; from my own point of view, I think it is critically important. It is handled by an independent group that is charged I think with investing and research that is of benefit to the industry as a whole, and that is not only within Western Australia but of course has a national focus.

Mr P.C. TINLEY: Following on about Tech Park more from an understanding of the model of a hub or a cluster rather than Bentley itself. It was established like it was and something has not worked; in other words to get the idea of it going the way they imagined it. States often get involved in infrastructure; it is an easier thing to do. Bricks and mortar look good and you can cut a ribbon on it too. It is not insignificant; everybody wants a plaque. When I look at the infrastructure around Tech Park compared to other hubs or clusters, organic or inorganic, there seems to be a lack of generalised infrastructure that would cause industry to want to gather around there anyway; for example, public transport networks, accommodation. I am not quite sure—other amenities and things. Is that a fair comment? If not, what would make Tech Park work? What is missing from Tech Park that you think would assist it to get to another on level?

Mr McDougall: I would agree with you, it has been successful to some degree in that it has attracted companies out there. Quite a number of companies are based out at Tech Park. But the unfortunate thing is they probably do not know that each other is based in the region and universities do not know they are there. What has not happened is that interactivity between the groups. I think there is a combination of things that contribute to that, probably about infrastructure and inaccessibility of the site. Probably on a very low level there is the fact that there is not even a cafe there. There is nowhere for people to meet to get together to chat. It is very much a site where people drive their cars to their office; they get out of their car; they go into their office; they do their work; they go back out.

Mr P.C. TINLEY: There is no option there for an informal collaboration?

Mr McDougall: There is no informal spot where people can gather. The Innovation Centre I think had visions of being that place where people would come together. It is probably fair to say that it has not really achieved that goal. There is opportunity I think for the Innovation Centre to become that kind of hub, with a particular focus: focus on the scientific infrastructure that is in and around that region so there is quite large scientific infrastructure. You have got the Pawsey centre; the ARC building, which is the resources centre; technology over at Curtin. There are facilities, but within that park there could be access by people, wet laboratory space, for example, that people are probably not that aware of and do not necessarily know how to access. It is never going to be a Spacecubed type of activity—some people have described this to me—where you go in to Spacecubed and it looks like there is a lot of stuff happening. There are a whole lot of people moving around and a lot of conversations, a lot of excitement, whereas when you go out the Innovation Centre, it seems like it is dead.
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[1.00 pm]

Mr P.C. TINLEY: The ergonomics do make an impact.

Mr McDougall: But there are people in the Innovation Centre who are running tech-based businesses and making money, and I am not sure that is the case in Spacecubed. It is a different focus. There are groups there that are out there just getting on with their work and doing things such as selling products and delivering services. They do not have a need necessarily to engage, but from a state perspective we probably want them to engage.

Prof. Wright: I think that is probably in its maturity—it has been there for, what, 30 years? That is where it has matured. It is more of a business park, perhaps, with ongoing businesses rather than a technology park where people are being pushed together and moving in and moving out, depending on whether they are successful and what stage of development they are at.

Mr McDougall: I think there is a role for that. The Innovation Centre coincidently had a review this morning and said that. If you wanted to do a state-based collaboration with the CSIRO and run an accelerator program, which are focused deeper technology opportunities than, say, consumer facing digital tech, you might use the Innovation Centre as a location for that—bring teams from universities, teams from the ag department or wherever it might be that there is science types of activities going on that are spitting out commercially relevant technologies. Use that Innovation Centre as a place for them to sit to access expertise, to have some co-working space and learn from their peers. I think that would be a good focal point for that sort of activity.

Prof. Wright: I agree. For anything like that to work it has to be adaptable; it has to change over time. I do not think that setting something up now and thinking we can sit back and use the same formula for the next five years will work. We have to constantly, I think, probably give the group the freedom to look at themselves and their way of operation and how they interact with their constituents and change accordingly.

Mr P.C. TINLEY: So more autonomy.

Prof. Wright: Quite possibly, yes.

The CHAIR: We are running out of time, unfortunately. Did you want to sum up or anything?

Prof. Wright: Not from me.

The CHAIR: Thank you for your evidence before the committee today. A transcript of this hearing will be forwarded to you for the 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.

Hearing concluded at 1.03 pm