

**ECONOMICS AND INDUSTRY  
STANDING COMMITTEE**

**INQUIRY INTO TECHNOLOGICAL AND SERVICE INNOVATION  
IN WESTERN AUSTRALIA**

**TRANSCRIPT OF EVIDENCE  
TAKEN AT PERTH  
WEDNESDAY, 23 MARCH 2016**

**SESSION ONE**

**Members**

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

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**Hearing commenced at 9.32 am**

**Dr ALAN BYE**

**Vice-President, Technology, BHP Billiton, examined:**

**Mr JULIUS MATTHYS**

**Vice-President, Corporate Affairs Western Australia, BHP Billiton, examined:**

**The CHAIR:** Good morning. On behalf of the Economics and Industry Standing Committee, I would like to thank you for your appearance before us today. The purpose of this hearing to assist the committee in gathering evidence for its inquiry into technological and services 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 here today. I am the chair, Ian Blayney. With me is the deputy chair, Hon Fran Logan, and committee members Jan Norberger and Hon Terry Waldron. 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 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 contempt of 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 could provide the full title for the record.

Before we proceed to the inquiry's questions we have for you today, I need to ask you the following questions: 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:** Before we start with questions, do you have an opening statement?

**Mr Matthys:** Yes, we do.

**Dr Bye:** I have a short statement I would like to make.

**The CHAIR:** A short one. I do not want a 15 or 20 minute one like I got the other day.

**Dr Bye:** Good morning and thank you for the invitation to participate in this parliamentary inquiry. At BHP Billiton we see innovation as the execution of ideas to create value. For us, innovation covers technology, process and, most importantly, people. This is why we have worked hard to transform our organisational culture to empower our people to pursue more innovative, efficient and safer ways to work. As a result, since 2013 in our Western Australian iron ore assets alone, we have implemented over 5 000 new ideas from our frontline workers to simplify and introduce new technologies, systems and process. These ideas have generated over \$4 billion of productivity gains

to our businesses. As well as supporting our existing workforce to innovate through social investment programs, we are investing in a pipeline of future innovators with a focus on boosting capacity in science, engineering and mathematics. These investments include a five-year, \$2.4 million partnership with Scitech to support their CSIRO Lab and the Aboriginal education program. There is also a \$12 million partnership with the University of Western Australia to support the creation of a global centre of excellence for the resources industry in Perth, and the appointment of a research fellow in the area of remote operations, automation and robotics. In addition, we have invested \$22 million to support the Australian Mathematical Science Institute to increase the representation of women in the field of mathematics.

On behalf of BHP Billiton, I would like to take this opportunity to extend our support to the committee's efforts to explore how governments, universities and industry can collaborate to drive innovation in our state. Thank you.

**The CHAIR:** Thank you very much for that. Who wants to lead off?

**Mr J. NORBERGER:** Alan and Julius, thanks for coming; I appreciate that. Obviously, when we have spoken around innovation we have equally looked at start-ups and innovation culture and diversification, but equally I think it is important that we realise that innovation happens in existing and well-established industries. From the perspective of that industry that you represent—well-established, large, multi-national corporation—what do you believe the Western Australian state government could do to help foster further innovation in this instance in your field? Is there a further role that as a government we can play or what could we put in place that would help the likes of BHP to continue to innovate and employ more people and be more productive?

**Dr Bye:** Jan, if you look at some of the best practice around the world in this area, the federal and state governments tend to have a broad-based approach to supporting innovation in the business environment. I do not think there is one particular approach. I can give some examples. Innovation Norway has a very comprehensive approach to this area. They invest throughout the whole cycle of innovation from fundamental research all the way to venture capitalists for start-ups. In Australia, the Advance Queensland program also makes broad-based investments across the whole innovation cycle. We support both of those approaches. We also support improving the open market approach and flexibility for businesses to operate; lowering the barriers of entry for SMEs and start-ups to get into our industry.

**Mr F.M. LOGAN:** In your opening statement you talked about 5 000 new ideas coming from staff. Can you explain a little bit about that? If some of those ideas lead to improvements where something has to be made to be installed, say in a process, for example, does BHP simply just adopt that—if it works of course—or does BHP have a tendency to spin those things out? Does it hold onto that IP or does it spin them out through a separate company or even just let the IP drift off into the marketplace and see who can actually help BHP?

[9.40 am]

**Mr Matthys:** When we started our most recent exercise, which was driven by a view that we needed to adjust the business because of the changing market circumstances, we started the process about three years ago when the price of iron ore was still \$100 a tonne at that point. The approach we took was a structured approach. We set up a project management office, a PMO, to run this. We appointed a senior vice-president who became our vice-president of transformation, and we approached the workforce on the basis that the people who are most likely to know where the waste, lost time, rework and dead time is are the workers themselves. We set up a process where we invited the workforce to tell us how they would do their job better if they were allowed to do it better; how they could reduce waste if they were allowed to reduce waste. It was out of that process, which was very structured—we had a formal way of trapping and evaluating those ideas from a practical implementation point of view and also financial point of view. We then tracked the implementation of those ideas and we had a formal way of rewarding and acknowledging staff—

workers and staff are interchangeable—so that the people who came up with the ideas were acknowledged for the ideas that they came up with, and that is where the 5 000 ideas came from. We have a pipeline of ideas. Every department has a transformation meeting, which was previously perhaps a monthly meeting but is now a weekly meeting, on reviewing ideas. Every Friday morning, the iron ore leadership team, headed by Jimmy Wilson, had a three-hour meeting where we went through the ideas and the recognition of people.

As an example of some of the ideas that were put up and executed, in our loco workshop, once they have done some work on the engine, they have to put the oil back in. It was taking about four hours to put the oil in. One of the fitters came up with this idea that if we bought a \$30 000 oil heater, we could put the oil in in 20 minutes. That was a simple idea. It came from the shop floor. It was put in place. There is no IP associated with that because it was simple buying it. Those are the sorts of ideas that got implemented. Some of them are much bigger, of course, but many of the ideas come from individual employees saying, “It is taking me so long to do something. If we did it this way, I could cut it by a significant amount of time”, or “It’s costing so much. If we did it this way, we could cut it by a significant amount of time.” Many of those things do not involve IP. They just involve management engaging in more detail with the employees on how to improve their workplace. There are obviously other things that we do that do involve a lot of the more structured work like our Integrated Remote Operations Centre in Perth, which is a significant capital investment of in excess of \$150 million and took a number of years to put in place. That has driven a lot of efficiencies in the supply chain. There are a range of ideas but that is the 5 000 ideas that Alan referred to.

**Dr Bye:** Fran, can I cover off the intellectual property question?

**Mr F.M. LOGAN:** Yes.

**Dr Bye:** This is a very important issue in terms of innovation in Australia. When we look at our business cases around technology, the real value for us is how quickly we can adopt technology into our business. We look at IP ownership as, rather, how efficiently can intellectual property move across into a commercial environment because in that way we can embed it in our business. We do not have a view that IP ownership is important to BHP Billiton. We have a view that we would like to see a system where intellectual property is an enabler and it enables us to accelerate the implementation of intellectual property. There are a few areas where we can see a competitive advantage and none of my peers may be operating in that area, and then we may look to own the IP and exploit that advantage, but is in by far the minority of the areas that we consider.

**Mr F.M. LOGAN:** Have there been cases where spin offs have actually emerged from BHP IP?

**Dr Bye:** We have certainly passed over intellectual property that we have developed internally, and if we do not have the capacity to maintain and support it, then we have found commercial partners where we have passed over the intellectual property and then we have bought the services back from that because that generates more value for us.

**Mr T.K. WALDRON:** Julius, you may have answered some of my question, but in your opening statement you mentioned areas of innovation, particularly people, and empowering people, which, in itself, is innovation to empower people to innovate. How do you actually do that?

**Dr Bye:** How do we do that? We have a program called Leading Step Up. All supervisors across our organisations go through this program. It really drives home the principles of collaboration, the principles of looking for innovative ideas and sharing them across our workforce. Andrew Mackenzie has realised the importance of changing our culture to be more open and to enable more innovation. That has been a major effort across the organisation. The other key piece of this is that it is leader-led; we do not have consultants who come in and give a course. The supervisors stand up and provide the content and information to their teams around how they work together and innovate.

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**Mr T.K. WALDRON:** So you drive it from within?

**Dr Bye:** We drive it from within. This has been a fantastic process in terms of creating a different culture.

**Mr T.K. WALDRON:** So you are happy with the success of that and what has come from it?

**Dr Bye:** Iron ore is certainly the standout in our business in terms of the change in culture and the innovative ideas. Our other businesses in coal and petroleum are also going through this process and generating innovative ideas and improving business processes.

**Mr T.K. WALDRON:** So it is that culture that leads to someone like the fellow with the oil coming up with that idea; so they are encouraged to do that and feel comfortable doing that?

**Mr Matthys:** That is correct. If I can just add to Alan's comment, it is very much about creating an environment where the leader, whether that is a manager of a department or a supervisor of a crew, has the skills to draw this information out of the team that that person is leading. I think this would be true of any workplace, not just our workplace, but of any workplace. If you sit down with a group of people and ask them how to save money, they might be less reluctant to talk to you. But if you talk to them about the things that are causing waste or the things that stop them from getting their job done efficiently, and you invite that conversation, you get a tremendous response from the workforce. We have thousands of ideas and we still have thousands to work through.

**Mr T.K. WALDRON:** Do you find that your staff are receptive to it and engaged in it?

**Dr Bye:** I think we have unleashed an untapped energy and intellect. It is fair to say over the last 10 years during the high commodity cycle, our focus was on capital growth—and very structured capital growth. We are in a different cycle now and there is this untapped energy because our teams want to innovate and improve their efficiency.

**Mr Matthys:** I think it would be a truism to say that most people come to work wanting to do a good job. If the system prevents them from doing what they consider to be a good job, over time the system can wear them down. But if we actually open that up and show people that we are prepared to make the changes that will help them do a better job—what you do is you get a few good examples and then as you follow them up, the workforce gets more confident that you are actually listening. They just keep bringing more and more out. It is about building that trust and that working relationship, which is different from the command and control models that perhaps most people have grown up with. We are trying to change away from that.

**The CHAIR:** Late last year I was your guest in Newman and we visited a new mine of yours.

**Mr Matthys:** Jimblebar.

**The CHAIR:** That is it. That is one of your mines of the future, is it not?

**Mr Matthys:** That is correct. It is our newest mine. It has the most advanced thinking and infrastructure.

**The CHAIR:** I remember you saying that the model—the mechanization, automation and all that—could not really be retrofitted into an existing mine and it really had to start with a new mine. Is that right?

**Mr Matthys:** Not entirely right. You do some things differently in a new mine, but automation can be retrofitted into existing infrastructure.

**The CHAIR:** Okay. You have the operating Jimblebars, if you like, and then you have the older mines. Are you prepared to say the relative difference in costs across the two mines—the newer, state-of-the-art mine versus the more traditional mine? Do you have a figure that you are prepared to share with us?

[9.50 am]

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**Mr Matthys:** I do not have a figure that I could tell you with any confidence. All our mines have cost structures that are driven by the geology of the mine, so how much waste you have to mine, the strip ratio, things like that drive costs differently. For instance, Mount Whaleback is a deep mine with a big strip ratio, but very high quality ore while other mines are more shallow, have less strip and maybe not the same quality ore, so there are differences. But across our mines we use the same equipment, the same digging equipment, the same trucks, the innovation around maintaining those trucks and how to effectively schedule those trucks so that you are getting productive time that can be applied across all mines equally. For example, three years ago our trucks would be at productive time of 4 500 hours a year—there are 8 700 hours in a year—so on a 24-operation, you have not got that great productivity. Now we are pushing above 6 500, in some cases closer to 7 000 and that can be applied in all mines just by innovation around how you operate that equipment, how you schedule the equipment and how the employees engage with that.

**Dr Bye:** I can give you some data. In the copper industry over the last 100 years, there has been a 30 per cent reduction in operating costs through incremental technologies, so just scale, and there has been a 70 per cent reduction in operating costs through new technologies. So you get a step-change in operating costs where you can bring in a new process. That is well demonstrated across the mining industry.

**The CHAIR:** How long do you think it will be before most of your mines are Jimblebars—more autonomous trucks and drills and stuff like that—compared with what they are now?

**Mr Matthys:** As I said, some of the fundamentals cannot change—the geology of it and the infrastructure that is already built is there. But the thinking is applied across all those mines now equally. We do not think differently, we do not treat our expectations of the way we engage with employees or drive productivity any differently across any of those mines. Jimblebar has a small trial on autonomous trucks. Out of our fleet of 180 trucks, 12 trucks are autonomous. They are still in trial. We are not yet fully commercialised across that and it will be some time before we are in a position to go down that path. We are currently implementing an autonomous drill program, so blasthole drilling. It will take two years to roll that out across the whole of the operation, but that is starting now and will go across the whole of the operation.

**The CHAIR:** Finally, I was not aware of your joint venture with Vale in Brazil until there were problems. Will the same pressures and technological changes operating in other countries in the world be going autonomous or because of their wage structure and that, it is less likely?

**Mr Matthys:** I think everyone has different economic drivers. Autonomy and technology are not cheap. You have to be able to get an economic outcome from it; there has to be a value equation, and I think it may be a little bit harder to reach that point in some countries where perhaps labour rates are different. I am not aware of a lot of autonomy in the South American operations.

**Mr F.M. LOGAN:** That comes to the point of my question, which was: is there an end objective that you are trying to get to in terms of a mine of the future or an objective for total mining and smart mining, or is it a question of continuous improvement in the way in which you have identified with your process of people? Is it continuous improvement of driving down costs for productivity gains? Is there a point, as has happened in other industries as well, where the capital costs for your technology and innovation far outweigh the labour costs of maintaining and operating the equipment? I remember that Holden in Adelaide, for example, actually took a whole line of robots out because it literally was quicker for people to do the movements with their hand in spot welding than it was to allow the robots to go through their programmed movements.

**Dr Bye:** Every business is unique. We are constantly looking to improve our efficiencies and we benchmark ourselves against the manufacturing industry. If we look at our availability and utilisation of our equipment against the manufacturing industry, mining in general is well behind. We are constantly looking at how we can drive our efficiencies more towards a manufacturing standard. In some places automation will be a key piece of the solution. In other places it is more

around how we characterise our ore body and how we understand the inherent variability, and then we manage that through the process. It is very difficult to give you a generic answer and say that this is our objective, because every site is different. But, as an objective, we want to be more like a manufacturing business and have the same metrics that the manufacturing industry has achieved.

**Mr Matthys:** If I can add to that, there is obviously a point at which the capital costs will outweigh. We obviously will not go that far. We are very much driven by value: what is the value that can be driven? Also, we are not a technology research company. We do not develop our own technology. Part of Alan's role is to look around the world at what other people are doing, whatever industry they might be in, and whether there is technology there that we can adapt for ourselves. We have not got an end game because it is a moving, continuous process of how to remain competitive and use the technology to provide safe working operations. For the instance of our autonomous drills, we are actually taking operators out of a situation where they could be at risk and using autonomy. It is a safety issue, it is a productivity issue and it is also a cost issue. All of those things have to work.

**Mr J. NORBERGER:** That is a great lead-in to my question—well done. I am glad we chatted beforehand. We heard before about some of the innovation that you are able to derive out of your own workforce internally, which is great, and it would seem, just from the examples you have given, that a lot of that is process-driven improvement or improving process innovation. What mechanisms do you have in place that either allow you to scour the market for technologies that might benefit BHP? Equally, if there is a company in Western Australia that has developed a widget and it believes that this thing is the bee's knees, is there a simplified process that innovators can approach BHP and make a proposal or submission? The general feedback is that the bigger the company, the less chance there is that you can get in the door. You might have the best product known to man, but no-one is interested; there is too much bureaucracy. Do you have a system in place to facilitate that interaction between yourself and the market, whichever side of the equation happens to initiate it?

**Dr Bye:** That very much falls into my area. We have a very structured way around approaching the market. I will step through that. First of all, we have a road map of technologies that we think are going to make a difference to us over the next 20 years, and those technologies are prioritised in terms of value. Where we see that there is a constraint in our supply chain, we say that we are going to need a technology solution. We have a technology scanning function and we partner with organisations around the world to search for that solution. They will give us links to academic professors across the world or small organisations that can solve those challenges. That is one area. We also engage closely with organisations like Austmine. Three weeks ago I presented at an Austmine conference and I laid out our areas of opportunity where we are looking to solve challenges. There were almost 300 people in that room—200 companies from across WA. All have some great innovative ideas. I had my team there and we were able to connect those companies with some of the opportunities we were looking for. I think the important caveat there is that we rank the opportunities. There are a lot of start-ups that have great ideas, but they are not top of the value proposition for us. They have a good proposition, but they are not right up top and there is a frustration there that they do not get in the door, when actually they are just not top of the list at the moment; we will get through to that area. We are working hard at opening up those collaboration opportunities to smaller players, because we do recognise that our major supply contracts are largely driven by efficiencies with big companies. It is my role in my team to network into the smaller groups.

[10.00 am]

**Mr T.K. WALDRON:** Collaboration has been mentioned in many of the submissions and hearings we have had; collaboration is really important. I know that BHP is obviously a huge iron ore producer, but also produces nickel and petroleum. Have you been able to apply lessons you have

learned from your iron ore business across the other businesses and learn from each other, and should the mining and petroleum industries do that more often generally in WA? What are your thoughts on that?

**Dr Bye:** That is a great question. When we look at the value proposition for us in the technology space, the best thing we could do is share our best practices within ourselves as a company. That will drive the most value. With the iron ore remote operation centre, during the course of last year we started developing one for our coal business in Brisbane. It was done in a much shorter time period and at a much lower cost because we were able to take the team across and share it with the coal business. We are also bringing petroleum technology, drilling and fragmentation technology across into our copper business, which is creating a whole lot of new opportunities for us. We are very aware that that internal collaboration will drive a lot of value and is doing it for us.

**Mr T.K. WALDRON:** What about generally? Should we be doing that more generally across WA, or are there limits to that?

**Dr Bye:** I do not think there are limits to that. I think we lack the platforms to enable that collaboration. There are conferences and one-off meetings, but if you had to ask me what would be the environment that we would go to collaborate around an industry problem, I would struggle to tell you who would be the honest broker —

**Mr T.K. WALDRON:** Does government have a role there?

**Dr Bye:** Absolutely.

**Mr T.K. WALDRON:** In what way?

**Dr Bye:** Perhaps they could be the honest broker in creating those collaboration environments for us to work with. The industry growth centres is one of the areas that we were looking forward to, especially in the METS industry growth sector, so that they could provide a collaboration platform, and in particular around the automation area. So if it would be a means for us to come together and pose automation challenges and have the METS sector come together to build those solutions for us, that would be a great outcome.

**Mr J. NORBERGER:** A quick question if I may. Coming back to automation for a moment, that has been around for a little while, but looking at getting a bit of momentum. The automation, especially around haul trucks and the like, at the moment for every job you lose up on-site—that is, a blue collar operator—do you create an equal number of job opportunities in Perth at the remote centre, or is there actually a net loss of worker? I understand the economic drivers, safety considerations and whatnot, but if you applied that argument, no human should be working because all of us face an element of risk and we will all be wrapped up in cotton wool. You are obviously focused on STEM. What is the transfer rate of an operator position? That role has now been automated. Are you creating half an FTE, one-for-one? What is the transfer to a white collar role?

**Mr Matthys:** I am not sure that we can give a definitive answer on that, Jan. We have not actually got a lot of automation yet at our operator level. The 12 trucks that we have got running as a trial are in a new mine, so there was no mine there beforehand, so there were no operators displaced. We have just got 12 new trucks running this trial and in the balance of the mine it is all operators. We have not yet experienced a significant automation process that has impacted on operators. When we did the IROC, we moved people from the sites into the central area; we did not really lose any jobs there. There was some up-skilling and some changes, but there was no net job loss from that aggregation of people into the control centre. We have now announced the program to do automation on our blast-hole rigs. We do not believe there will be any net loss of jobs from that program, because everyone will be offered an alternative. They may go into a maintenance role or some other role associated with that activity. But I think over time it is impossible to say that there will be a one-on-one. I was reflecting on that this morning. When I joined BHP in 1982, we had a telex room operator and we did not even have a fax machine back in those days. Things have

changed a lot, but there is no less employment; people just move into IT departments and other types of roles over time, which is why we have had a constant program of supporting that education and training. We spend a lot of money every year on training our own staff as well the work that Alan has already discussed with the universities et cetera.

**Mr F.M. LOGAN:** That leads me to one of my final questions about investment in training. Particularly, your submission talked about the need to boost STEM skills capacity. Could you just outline what BHP is maybe doing to support that request and need?

**Mr Matthys:** I think Alan covered it in some detail in his opening statement, but we have a significant investment in STEM education around Australia with the CSIRO and the mathematical institute. We have education programs that run from preprimary all the way through to university scholarships at UWA and Curtin in engineering, business and chemical engineering. We have also invested in the UWA Business School—\$5 million invested in the infrastructure plus \$1 million a year in scholarships at UWA. We have now invested with the engineering faculty to upgrade their facility. We made a \$12 million pledge and we have got scholarships going in the engineering department and we are sponsoring a research fellow in automation. We believe that we are making a commitment to that longer term improvement and supply of people who are capable, because we see that that is the direction that our business is going and that we are going to need people with those skills in the future. At the same time, in the last four years we have spent over \$200 million training existing staff—people who work in our business—in safety training, but also all sorts of other training to keep their certificates up to date and upskill people so that they can do the tasks that the current business needs, which are very different to what they were a decade ago.

**Mr F.M. LOGAN:** Just on that Julius, I mean the need for skills for workers working on autonomous vehicles are significantly different to what they were for mechanical. Mechanical skills are still needed anyway because trucks are trucks. For example, pieces of mechanical equipment are the same except that they have different sensors and controllers, but those sensors and controllers are similar in terms of technological change on our own cars as they are for your pieces of equipment. Is BHP investing in training for that specific task and those people who have that specific task? Unless you pinch a lot of mechanics, there is not that many around.

**Mr Matthys:** We are investing in those people. For all of our operations now we need a much more sophisticated wireless network. Obviously, if you are going to run anything autonomously, you need a very reliable wireless network. You cannot have suddenly a blackspot —

**Mr F.M. LOGAN:** A Telstra dropout.

**Mr Matthys:** Whatever dropout. We need skills now to run those things that we did not need five years ago.

**The CHAIR:** Have you ever considered or have you had like a corporate venturing arm; you know, a small amount of capital going into early stage commercialisation? Have you ever considered going into that space? Following on from that, since you scan the world for innovation, would you say that there is a country that does that well? Peter Klinken talks about the 10 stages and the valley of death and stuff like that. Is there someone who stands out because they do that better than most?

[10.10 am]

**Dr Bye:** Certainly, the United States is the venture capital success story. When you unpack that, there are some good reasons for it. Seventy per cent of R&D that happens in the United States happens in the commercial sector; only 30 per cent happens in the universities. In Australia that is the other way round. That is one key driver that there is far more R&D that happens with commercial groups and there is venture capital funding that goes in to support that, so it is a much bigger economy. I think we struggle in Australia in being a smaller economy and therefore a lot the R&D is done by universities and we do not bridge the gap across to the commercial environment.

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To the first part of your question, as part of our total investment in technology we do allocate funding into some start-ups if we think that there is a gap that needs to be addressed. We have a couple of those around the world where we are making investments to support those businesses to bring that technology to market. It is not just about cash, we also provide access to our operations where they can trial and test their products and get them to a mature state. Do we have a department with a venture capitalist fund that activity manages that? No, we do not. We do not see that as core business at this stage.

**The CHAIR:** An opportunity for the big Australian, I think, but anyway.

**Mr Matthys:** We tried that in the early 2000s. After the merger between BHP and Billiton there was a small venture capital group, but that was disbanded after a few years because, as Alan pointed out, it is not core business and it does not sit comfortably with the focus that we need to have on safety, production and cost. We have moved away from that.

**The CHAIR:** So did that come with the merger with Billiton or was it part of BHP?

**Mr Matthys:** It was something that came out the merger. I think it was more a Billiton thinking, but I do not think that Billiton brought that group with them; it was something that came out of the merger.

**The CHAIR:** I think that is about all we have time for. Thank you for your evidence before the committee today. The transcript of this hearing will be forwarded to you for the correction of minor errors. Any such correction 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 by 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.

There is a possibility that we might have a few follow-up questions; is it okay if we just write to you with those?

**Mr Matthys:** Sure.

**The CHAIR:** Thank you very much for your time.

**Hearing concluded at 10.13 am**

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