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**TRANSCRIPT
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PRODUCTIVITY COMMISSION

**INQUIRY INTO RURAL RESEARCH AND DEVELOPMENT
CORPORATIONS**

**MR P. WEICKHARDT, Commissioner
DR C. SAMSON, Associate Commissioner**

TRANSCRIPT OF PROCEEDINGS

AT PERTH ON THURSDAY, 25 NOVEMBER 2010, AT 8.58 AM

Continued from 24/11/10 in Adelaide

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MR WEICKHARDT: Good morning, ladies and gentlemen. Welcome to the public hearings for the Productivity Commission's inquiry into rural research and development corporations. My name is Philip Weickhardt and I'm the presiding commissioner on this inquiry. With me is Dr Cliff Samson, associate commissioner. The purpose of this round of hearings is to facilitate public scrutiny of the commission's work and to get comment and feedback on the draft report which was released in September. Following these hearings in Perth, hearings will also be held in Mildura next Tuesday, 30 November. We've already had hearings in Canberra, Sydney, Melbourne, Tamworth, Brisbane, Hobart and Adelaide. Following all this, we'll be working towards completing a final report to government in February 2011, having considered all the evidence presented at the hearings and in submissions, as well as other informal discussions.

Participants in the inquiry will automatically receive a copy of the final report once released by government, which may be up to 25 parliamentary sitting days after completion. We like to conduct all hearings in a reasonably informal manner, but I remind participants that a full transcript is being taken. For this reason, comments from the floor cannot be taken, but at the end of the proceedings for the day, I will provide an opportunity for any persons wishing to do so to make a brief presentation.

Participants are not required to take an oath, but should be truthful in their remarks. Participants are welcome to comment on the issues raised in other submissions. A transcript will be made available to participants and will be available from the commission's web site following the hearings. Submissions are also available on our web site. In terms of the safety procedures here, in the unlikely event of an emergency requiring evacuation of this building, exits are located straight out of this door and out of the main front door of the hotel and there's another emergency exit behind us that the associate commissioner and I might avail ourselves off, should we need to. The assembly point is across the street and assemble in the carpark.

If you require any assistance today, please speak to Mr Aaron Maury, who is on duty here today. Finally, can I also ask the audience to please check that their mobile phones are either turned off or switched to silent mode. I'd now like to welcome our first participant for the day, the PGA. If you could individually please give your names and the capacity in which you're appearing today.

MR WILSON (PGA): Rick Wilson, chairman PGA Grains Committee.

MS THOMPSON (PGA): Janet Thompson, policy director for the Western Grain Growers Committee.

MR BRADLEY (PGA): Leon Bradley, immediate past chairman of the Grains Committee and member of the PGA executive.

MR MCGILL (PGA): Gary McGill, past chairmen of the Grains Committee and member of the PGA executive.

MR WEICKHARDT: Thank you very much indeed. Over to you. We've allocated in total an hour for this discussion. You're welcome to use that as you will, but if you give us some opportunity to ask questions, that's probably a most productive thing as well.

MR WILSON (PGA): Thank you, commissioners, and we welcome the opportunity to present in front of you today. The PGA is a free market market-solution-based organisation. We've found ourselves in furious agreement with the Productivity Commission on wheat marketing issues and most recently the Wheat Marketing Act. We like to feel that we initiated this inquiry. We wrote to the minister in August of 2009. We've had serious concerns about R and D in the grain industry for some time, however with our limited resources, we were concentrating on wheat marketing for many years and once that issue was resolved, we moved onto grains R and D.

I guess what precipitated the letter to the minister last August was some comments in the GRDC Ground Cover magazine that productivity growth in the grain industry had only been running at .9 per cent - that was an ABARE figure - and yet growers since 1992 have been paying a 1 per cent compulsory levy. Arriving at that .9 per cent included all total productivity gains and so grain growers were getting a very poor result for their 1 per cent investment. It's the strong view of our organisation, as outlined in our initial submission to this inquiry, that the politicisation of the R and D effort in the grains industry has led to these poor outcomes.

We believe that the PIERD Act serves us very badly, in that the payers of the levy, the grain grower, has no influence on the outcome of these R and D projects. There is no accountability for the people who sit on these GRDC panels and boards, other than to the minister, and we believe that the minister has, in most cases, different priorities than perhaps the individual grain grower has. So it's our strong contention that the PIERD Act does not serve us well and that there should be some significant reforms to R and D issues.

Just to make a comment on the 1 per cent levy, that levy is levied on gross income. I would suggest that in Western Australia this year, almost every grain grower would be paying that levy with borrowed funds. There would be very few grain growers producing a profit this year, therefore that 1 per cent levy would be funded through borrowings from their bank. If I can now hand over to our immediate past chairman, Leon Bradley, who would just like to talk about some of the historical factors in grain industry R and D and productivity gains.

MR BRADLEY (PGA): Thanks, Rick. Thank you to the Productivity Commission for these hearings. I think I'm right in saying this is the first time that the GRDC since its inauguration has actually been independently reviewed by an outside body other than bodies they've contracted themselves. A lot of their work tends to be self-serving, because who pays the piper calls the tune. So it's particularly appreciated and wouldn't like to wait another 20 years before - to allow problems that we believe exist in the GRDC to be ongoing. We do think - - -

MR WEICKHARDT: Can I just clarify, we are not reviewing the GRDC, we're reviewing the RDC system as a whole.

MR BRADLEY (PGA): Yes, I'm looking at it from my narrow perspective.

MR WEICKHARDT: Okay.

MR BRADLEY (PGA): Yes.

MR WEICKHARDT: I just want to clarify that.

MR BRADLEY (PGA): To the degree where our problems - what we perceive as our problems are relevant to the other ones is up to your judgment. We're not saying that these apply to the - - -

MR WEICKHARDT: No, we're happy to hear your experience as it pertains to general issues to do with the model and how it could be improved. But I'd just like to stress, and I stress this about AWI too, we're not reviewing any specific RDC here but we are very interested in the experiences that levy payers and other stakeholders have with the RDC system and how it could be made better.

MR BRADLEY (PGA): Well, that's where we really do have a problem with the system, we think the system is wrong. The system is wrong and that encourages all sorts of - let's say the business incentive of the GRDC is to keep the levy money flowing, so a lot of money is devoted to buying off constituencies, and they call that extension. A lot of money is spent doing projects that are really political priorities. That's because the levy payers - they know the levy payers are going to pay whatever the performance of the GRDC, the incentives are all wrong.

But also we believe the process is a bit upside down as well because our view is that it doesn't matter how much money you throw at the GRDC in the hope that they will generate something useful and we'll get a payback on it, we don't believe that innovation and improvement in technology proceeds like that. We think it's more often driven from the ground up. Rick said I was going to discuss this historically but last evening I thought of something in real time that might

demonstrate it more effectively.

Here I've brought along a new innovation, it's a seeding boom - farmer up at Geraldton. Geraldton soils, they dry out, they're water repellent and he couldn't get the right seeding depth or enough precision in his seeding depth to satisfy him with all the equipment that was available in the market. He has extensive resources, this farmer, couldn't buy it, so he decided to do it himself. Then what essentially this does is the seed goes in here when it's going through the soil and it drops out these little slots at the back, so all you do is set the depth in this and that's where you seed goes. I actually use these. If you want the seed that deep you drop something that's easily visible like lupins and you just scrape the soil off the top and it's all laid out there perfect, like you've done it by hand.

As they were developing this they noticed that there are other advantages as well. In the no-till system which everybody is using now, which the GRDC takes credit for most of the time - they also invented the Internet - under the no-till system - the no-till system in WA is very reliant on a chemical called trifluorotoluene, and it could actually be really called the trifluorotoluene system. The trifluorotoluene is to control weeds like ryegrass, which is the worst weed in WA. But the trifluorotoluene also damages the wheat. What they found using the system is that the grain is separated by a barrier of fresh soil where it's placed from the trifluorotoluene, so there's also other advantages like that and something else that then occurred to them, well, when you're seeding in a no-till system and you've sprayed out your trifluorotoluene, you have to be careful not to throw your soil into the trench where your seed is dropped because the trifluorotoluene damages your seed.

But because the seed is protected through the placement in the system, they are able to speed up their forward speed and sow at a much faster rate. The actual throwing of the dirt into the trench actually assists in the wheat control in the trench without damaging the grain. Now, this was first commercialised in 2008 and there has been a lot of independent trial work done on that. Roughly you could say it's enhancing yields by 300 kilograms a hectare. Each one of these costs \$250, with the point. A modest program in WA would be 1000 hectares, 300 kilograms over 1000 hectares is 300 tonnes. Today that's probably worth about 80-odd thousand net on-farm. The cost of equipping your bar with these - a modest bar would be about \$10,000. So you have an eight to one return.

One interesting thing about this, there has been not a single cent put into this by the GRDC, it has all been privately funded by farmers. They've done the engineering, the design work, all their own research, their own development and the extension is very cheap, it's word of mouth. Farmers have every incentive to seek out a system like this, and they do. I think you would agree that's completely - that experience is completely opposite to what the GRDC model is built around. So just

to make us particularly annoyed is that out of that 840,000, \$840 will be deducted for the GRDC who have contributed nothing. I notice in your analysis that - or some of your comments on there, which we agree, it is very hard to apportion what amount of progress that the GRDC is contributing towards or productivity improvement, and that's right. But with this system we've got no way of getting signals back to people who are actually doing, in this case, a far better job of innovation than the GRDC has done for 10 years. This is a very significant improvement on the results today.

So I suppose that demonstrates what I was going to go about explaining in a long-winded way. There's a kind of a barrier between the GRDC - all the information flow is they know everything and then they tell us. If you want a boring day go along to a GRDC consultative meeting, I can tell you it's painful. You will have the farmers who believe in the system but most farmers think like we do. They think they've wasted their money and they don't have a lot of respect for the process. So basically we're saying we should have a lot more control over the allocation of their funding.

We do note here, and I don't know if Rick was going to make this point, that one of your recommendations is that the government's contribution be halved. We think you should go the whole way and take the whole lot away, because the government's influence and the PIERD Act are probably the single biggest drag on the effectiveness of the R and D spending under the GRDC system in itself, and that would be one way to improve it. The other way is because we think the GRDC is simply displacing and discouraging private innovation, just as I've discussed - simply the charter of what they're engaged in is simply too broad. It dissipates the effort. I think we need to narrow down their charter and identify where we can get the biggest return for the buck, particularly where it's clear that the private sector won't do it, and with a narrow charter like that and where the priorities and what they're trying to achieve are defined and specific and we leave the rest with private sector. I think we'll go a lot further and we could probably do it with the levy money that we raise now.

MR WILSON (PGA): Thanks, Leon. If I could just expand on some of those comments. In the process of putting together our original submission, we consulted quite widely with researchers in Western Australia. The area historically where the bulk of productivity gains have been made in the grain industry were in plant genetics and the researchers that we spoke to felt that the area where a compulsorily funded effort probably should be concentrated would be on plant breeding and germplasm.

So our recommendation in our initial submission was that the levy should be cut to .5 per cent, get rid of all the waste that currently goes on. I think we're looking at something like \$16 million being expended at the moment on climate change initiatives. That is a political debate that is going on at the moment. I would contend

that most farmers don't have a 100-year timeframe. Most farmers in Western Australia at the moment probably have a five to 10-year time frame and they want to see increased profitability on their farm operations next year, not dealing with problems that may or may not occur in 100 years time.

One of our committee members attended at GRDC consult meeting in February this year. It was a day-long meeting. A group of farmers were brought together with a facilitator and a whiteboard and some butcher's paper and they spent all day talking about the priorities and climate change was not mentioned once amongst that group of farmers, yet the paper that was produced at the end and circulated to the members of the consultative group there, climate change appeared as the number 1 priority. So this is what we mean by the politicisation of the process. There wouldn't have been one farmer in that room, who, had he control over his own money to invest, would have invested in any sort of climate change initiatives. This is where we feel that our money is being squandered by the politicisation of the process. We would like to talk about our recommendations specifically afterwards. But, Janet, would you like to make some comments on the draft report that the Productivity Commission - - -

MR BRADLEY (PGA): Rick, there's something I missed out as well. Since they've brought these points to the market, they've actually sold 14 and a half thousand of them in two years by word of mouth basically. It just shows you if the farmers have the incentive and they see value, they'll just take it up because it's their job to be alert to developments that give them an advantage.

MR WILSON (PGA): I guess the contrast to that is that the GRDC spend six and a half million dollars in communication. I think in our original submission, we highlighted a couple of the areas where they buy constituencies and one of them was a function they held in Harvey, which is down in the dairy and beef area of Western Australia called Graze and Grain and basically you could go along and have a free feed on the GRDC and the GRDC levy payers. When I attended a consult meeting in Canberra earlier this year, I asked the specific question what was that particular event trying to achieve and I couldn't get an answer. So it's very easy to waste other people's money, I'm sure we all know that. Janet.

MS THOMPSON (PGA): Thank you, Rick, and thank you for your time. Welcome to Perth. The quantitative analyses that are referenced throughout the original issues paper of the Productivity Commission throughout a substantial number of the submissions that have been made in this inquiry and wrapped up again in the draft paper, I would submit, are not quantitative at all across the board; they're qualitative. The conclusions that are then drawn when we get into, for example, the Zheng, Mullen and Xiao study of 2010, the conclusions that are pooled then with the cue CUSUM analyses are tenuous at best.

So we would like to endorse the commission's statement on this that you stated the consequence of these various factors taken together is that any econometrically-estimated return to R and D investment is too imprecise for calibrated funding and indeed recognising that Australian R and D efforts often depend heavily on research conducted overseas. Even isolating the precise effect of domestic investment in R and D is virtually impossible. We highly endorse that statement.

One thing that concerned me when I was reviewing the econometric analyses of many of these studies - Alston et al from 2001, Mullen 2007, the list goes on and on - is statements like this one. This is from John Mullen in the Australasian Agribusiness Review 2010 in February. He's talking about the significant decline in productivity, which, by the way, in ABARE's assessment of the productivity gains, I think because they've given their methodology and it's a consistent methodology across time, I think comparing productivity gains in those reports is quite acceptable. In cropping we're showing that in the most recent decade to 2007, cropping productivity has actually decreased by 2.1 per cent.

That is shocking. When GRDC was put in, it was estimated to be 1.9 per cent, then it decreased - they're overlapping decades that they're analysing - by 1.4 per cent and now the most recent is by 2.1 per cent. So, if anything, our original submission that assumes a .9 per cent productivity gain is generous on our part. So, accepting that productivity gains have significantly decreased, people like Mullen come along and say, "Clearly a run of poor seasons explains some of this slow down in productivity growth, but public investment in R and D in agriculture has been stagnant since the 70s and it seems likely that this stagnation is now being reflected in broadacre productivity growth."

I would say that we conclude the precise opposite, that productivity growth has gone into negative territory because of government investment and that government investment is, in absolute terms, significant and it has increased significantly in absolute terms because of the quid pro quo that is required in obtaining that funding, and that is a total politicisation of investment decisions that occurs in attempting to get that funding.

MR WILSON (PGA): Leon, Gary, anything to add before we go on to our recommendations?

MR MCGILL (PGA): No, not really. I just, perhaps for my own perspective, after having been involved in PGA grains for some 20 years now, just to reiterate and re-emphasise what is said in regard to the politicisation of the process - and I think he made the point that West Australian growers this year will be running at losses. That's actually not just Western Australia. I think the last decade all of Australia, particularly eastern states grain farmers, have suffered from loss situations, so it's

right across the board.

We're very concerned about the constituent buying practices that go on. Since the announcement of this review, we've detected and felt the ramp up of the propaganda, if I could call it that, and the defence of the current circumstance. I have noticed all of this year the GRDC official publications include much about defending the system and the benefits that accrue to us and so forth. We've just noticed that ramp up. So it is very timely if we do this and we hope that we can have some good deal of rigour about this process.

MR WILSON (PGA): Thanks, Gary. So we've sort of outlined our concerns and the issues that we have problems with. We did come up with what we believe are some workable solutions. I guess the first issue that we wanted to deal with is that we need to get the government influence out of where the investment goes. So we recommended that we should forego government funding in the form that it currently is and that grain producers should be exempt from the PIERD Act.

We felt that the .5 per cent levy, compulsory levy, would cover a much tightened mandate, specifically in plant genetics, specifically looking at improving and increasing plant genetics. But we also felt that if growers had the opportunity to invest their own money in R and D projects - and something like this may be something that a group of growers might get together and want to support, so they should be able to invest another .5 per cent voluntarily in genuine R and D type projects. We also suggested that if the government wanted to contribute to R and D, which they obviously do, then they could make that contribution through a matching tax deduction of 150 per cent.

MS THOMPSON (PGA): We put 200 in.

MR WILSON (PGA): We put 200 in. We picked any figure and put in it. But whatever, the principle is the same, that really that would empower growers to make their own decisions on the areas that they feel are going to benefit their operation. In my particular case I get - my crop gets wiped out once every three years with frost. I would sink every single penny that I had into frost research. But in Western Australia I think in the past they invest around \$400,000 in frost research, which is - I would imagine they'd spend more on nosh-ups down in Harvey than what they do on that particular issue; not just in nosh-ups - not just in Harvey but might have a few of them around the place.

So fundamentally they were our main recommendations that we make. I'm sure there might be some others amongst them that Janet would like to touch on but it really comes down to empowering individuals to make their own business decisions about where they see that their R and D is best invested.

MS THOMPSON (PGA): We just probably stand behind our original submission. I've just got a few things in response to some of the recommendations in your draft report that I'd like to comment on. One is the recommendation that:

Product-specific maximum levy rates should be removed from
schedules 1 to 26 to the Primary Industries (Excise) Levies Act 1999.

We'd just like to say that this act was passed as a protection against RDCs easily increasing levies without proper approval from the people paying the bills. So long as RDCs function within the PIERD Act it is necessary to maintain this small check on the power of RDCs and the government. So we don't support the recommendation.

MR WEICKHARDT: Can I just clarify this?

MS THOMPSON (PGA): Yes.

MR WEICKHARDT: What we were saying is if consenting adults want to levy themselves more money then they should have the right to vote in favour of it.

MS THOMPSON (PGA): Which I understand has been occurring, so I guess I'm not exactly clear on what the point of this - - -

MR WEICKHARDT: Some sectors are already up at the maximum level under the act. They have voted that they want to increase the levy. It has been a majority vote but because the act requires amendment they've been frustrated that they have been delayed or, you know, sort of time has been taken. In some cases - I think one industry has been waiting two years to try to get the act modified so that they could be levied an increased amount of money. So we were simply saying - - -

MS THOMPSON (PGA): But surely it could happen voluntarily then?

MR WEICKHARDT: Sorry?

MS THOMPSON (PGA): Surely it could happen voluntarily then?

MR WEICKHARDT: Well, the Commonwealth can only collect a compulsory levy according to the act.

MS THOMPSON (PGA): But if say 86 per cent of the members are in favour of increasing the levy then surely those 86 should say, "Well, not only do I want" - surely as the industry they can agree to contribute more.

MR WEICKHARDT: They might be able to.

MS THOMPSON (PGA): I don't see that it's necessary to amend the act and its protection against the 14 per cent that say, "No, actually, I'm maxed out."

MR WEICKHARDT: Okay, all right.

MS THOMPSON (PGA): Also, just on the comments on that when it says:

The commission seeks further input on whether R and D and marketing levies should be separate;

so somehow obviously that's tied in there. I'm not exactly - I don't understand how. So clarification on your draft report would be welcome there.

MR WEICKHARDT: That's a separate point which I can just comment on quickly. Some of the RDCs like AWI have the ability to - the board has the ability, even after a wool poll which has given an indicative split between the marketing component and the research component - of course this is specific to the industry-owned corporations where they are authorised to conduct marketing activities. But the board of AWI are, for example, able to flex the amount that they spend on marketing or R and D on an annual basis, I guess. Whereas MLA, for example, or dairy, have fixed amount that is put to their levy payers saying, "We will only spend this much on marketing and this much on R and D." We were seeking input from people - I guess, in the grains area it's not very relevant because at the moment you don't have a marketing levy but were you to have one - I suspect from your comments you don't want one, but were you to have one I guess we were seeking input whether or not you wanted the board of the RDC to have any ability to flex how much they spend on marketing and R and D. I suspect I can guess your answer.

MS THOMPSON (PGA): That is a separate recommendation and perhaps just that discussion relative to this Primary Industries Levies Act is misplaced in the draft report, I don't have - but since you've brought up the marketing thing I will comment on that. We've stated that marketing should exist wholly in the commercial post farm gate realm. Competition in a deregulated market is already dramatically improving marketing. We've seen that in the last two years. Competition does wonders for the incentive to get out there and actively market. In our original submission we stated that GRDC funds were being spread too thinly across too many areas. When GRDC is failing in their existing mandate the last thing we should allow is an expansion of that mandate into non-core areas. We would definitely consider marketing to be a non-core area. If we focus on productivity gains that's where our farmers will get the biggest bang for their buck.

MR BRADLEY (PGA): If I might add there, observation in the wool industry

would indicate that going into marketing is the triumph of hope over experience. I can remember going through - I used to be a wool grower - going through the demise of the wool growing industry back in the early 90s and that. Bob Hall, the consultant from Darkan, did a calculation that wool growers had spent a billion dollars on these marketing exercises and hadn't sold a single bale of wool. I don't think it's any coincidence that the sheep numbers in Australia are at their lowest level in a hundred years. The people who run the wool industry are the slowest learners in the country. I feel sorry for the wool growers and I'm glad I'm not one.

MR WILSON (PGA): Well, I guess that just raises another issue, Leon, now you've had a gratuitous shot at the wool growers in the room, which I am one of. In the wool industry we do have an opportunity to vote on the level of the levy and the composition of the board. Now, I consistently vote for a zero per cent levy and we soundly get beaten. But at least I feel that I've had the opportunity to have my input and have my vote. Now, that is sadly lacking in the grains industry. Essentially the entire R and D effort is controlled by the minister. There are some interpretation around the PIERD Act who actually is the representative - what do they call them, the - - -

MR WEICKHARDT: The industry representative body.

MS THOMPSON (PGA): Yes, representative organisation.

MR WILSON (PGA): But essentially the minister. All the control resides with the minister. Another one of our recommendations was that rather than these levies be deducted prior to the grower actually receiving his net return that the grower should be sent an invoice. Now, I have personal experience of growers who are working out their net price at the container receipt point who failed to factor in a 1 per cent levy on their canola which is \$5 a tonne or, in a good season, around \$10 a hectare. They had no idea that that was actually deducted from their returns. I think these organisations would come under much greater scrutiny if in February this year every farmer in WA got sent an invoice - you know, for the bigger growers, up to \$50,000 - and they might start to wonder whether they're getting value for money, which at the moment we would contend they're not.

MR BRADLEY (PGA): Then a vote would mean something as well.

MR MCGILL (PGA): There are precedents for that situation, where some years ago - invoices are now sent to grain farmers here in WA for services rendered by the grains logistic sector, the freight and bulk handling, and perhaps we're not entirely satisfied that the average wheat grower in the last couple of years is really understanding all these great costs, but it will be there. It's a contributing factor and it's a very good point that we make, I think.

MS THOMPSON (PGA): I am cognisant that you want to leave time for questions. I might anticipate some of those questions and I'll answer a couple more. In recommendation 8.1, there's a significant list of additional things that RDCs should do to obtain government funding. I suppose we would say that amending the PIERD Act in the ways that are proposed in this draft report, to increase government control over the RDC function will only exacerbate the existing problem of RDCs existing more for the appeasement of government than for the pursuit of productivity gain for levy payers.

In recommendation 8.3, the second point of it was discussing whether industry representation should be allowed as a function of the RDCs. We believe that the function of representing growers should be fulfilled within a voluntary membership arrangement, not with a compulsory levy arrangement. Our membership would reject outright that someone represents us because we are forced to pay them money every year. It is vital that RDCs oversee good solid projects and seek gains in productivity. There is no place for industry representation in that mandate.

Finally, recommendation 8.5, discussing the increased power of the Council of Rural Research and Development Corporations or forcing RDCs to get more involved with the CRRDC, we think that increasing the role of RDCs through mandating increased participation in a council of those RDCs is wholly counterproductive. RDCs should be accountable to the levy payers, not to government and not to a bureaucratic council that arises out of an amalgamation of RDCs that serves no real purpose. We also strongly oppose spending scarce resources in any attempt to quantify the unquantifiable, and that was in the second dot point, perhaps even the first, that encourages us to quantify - yes, it is the first dot point, examining the scope to quantify or put orders of magnitude on environmental and social impacts.

Aside from those PIERD Act amendments, the concept of Rural Research Australia, you've asked for input on how it should be structured and how the funding should take place and what it should do, on behalf of our members who are levy payers, we are concerned only with the efficient spending of levy dollars in pursuit of productivity gains. We have no comment about how an RDC established by government and wholly funded by taxpayers should be structured, managed or funded. We do note however the comment made by the commission on page 138 that says:

Conversely, without any funding linkages to industry, one of the key strengths of the current model would be lost. In addition to increasing the risk of investment in projects of limited social value, the absence of any direct industry stake in research outcomes could make the new entity more vulnerable to short-term budgetary pressures.

Thank you.

MR WEICKHARDT: Sorry, I'm not sure I understand that final point.

MR BRADLEY (PGA): Probably doesn't want to run welfare for scientists.

MR WEICKHARDT: I thought I heard you say you don't have a problem with government spending taxpayers' money on something that's purely for government purposes but your conclusion at the end of that - - -

MS THOMPSON (PGA): That was just quoting back to the commission what the commission has stated. I just think it's interesting to note that. Obviously within the context of RDCs and our levy contribution, which is why we're here, I suppose an additional RDC being established and dealt with through taxpayer money is outside the realm of us representing levy payers here.

MR WEICKHARDT: I assume sometimes you're also taxpayers though.

MS THOMPSON (PGA): It's true, but obviously - - -

MR BRADLEY (PGA): But if the government is going to waste their money on a project like that, well, go ahead, but - - -

MR WEICKHARDT: It's not their money, it's your money.

MR BRADLEY (PGA): Well, once they've got it, it's their money. We just accept the government is going to waste money.

MR WEICKHARDT: Okay. You might accept that. Perhaps you might call me idealistic but I'd like to think that sometimes government can spend money in better ways than others and we're here to try to recommend how they should do that.

MS THOMPSON (PGA): I suppose just in that vein, in the hope, I would reiterate - and we've stated this in our original submission - that productivity gains benefits society. In fact benefits to society and the environment cannot occur in any way other than in productivity gains.

MR WEICKHARDT: I suspect if we assembled a whole group of Australians here, they would say that society gets some benefits when the environment improves and things of that sort. You might not - - -

MS THOMPSON (PGA): And the environment improves because the productivity - - -

MR BRADLEY (PGA): Commissioner, our argument is the higher the yield is, the less land needs to be devoted to - - -

MR WEICKHARDT: Okay.

MS THOMPSON (PGA): That's right.

MR BRADLEY (PGA): In the last 40 years, agriculture production around the world has increased phenomenally on the same area of land. If it had stayed at the then levels of production, say, back in the 60s before Norman Borlaug came across, there wouldn't be any parks or sanctuaries or reserves left. They would all be under crop, because people are going to eat. They will eat the bark off the trees if they have to.

MR WEICKHARDT: Cliff, you've got some questions?

DR SAMSON: Thanks. Look, as Philip said at the outset, we're here to look at the entirety of the RDC model. However, you clearly make it difficult for us to not focus on GRDC. So for the record, I'll tell you what you already know: that I was for a time on the board of the GRDC. But Philip and I are here to be objective, impartial, analytical, and that's what we will do.

One of the things we're looking at is to try and differentiate between some of the concerns that people raise in general across a whole range of industries are issues that relate fundamentally to the model itself or more the application of the model by some boards or some entities. I don't want to put words in your mouth, but my impression from listening to you is you are actually saying the model itself is fundamentally flawed. Do you see the model as it currently stands being implemented more along the lines that you're interested in by a different set of people or is it just the model that is - - -

MR BRADLEY (PGA): No, changing the people won't fix the problem. The system is wrong.

DR SAMSON: Okay. Now, just help us here; we are genuinely trying to understand this. We have now, since this inquiry commenced, travelled fairly extensively. We've talked to many, many people, producers, research providers, the RDCs themselves, a whole spectrum of people in this space, if you like. As you know, we've got over 180 submissions and we've now been pretty much around the country having these hearings, so we've heard a lot of people and - - -

MR BRADLEY (PGA): Can I interrupt you there. I make the cynical observation that nearly all of them are, from what we have seen, actually beneficiaries of the system and direct beneficiaries, financial beneficiaries.

DR SAMSON: You tell me, because without putting my house on the block on the numbers, it is without a doubt true that the vast majority of the people we have talked to when the issue of the GRDC comes up, their comments are always favourable and indeed when the sort of issue of ranking very roughly the 15 RDCs, my intuitive feel is that if you did a count, the GRDC would come out as being seen as the most effective of the RDCs. Tell me why that is?

MR BRADLEY (PGA): That's a measure of the effectiveness of their propaganda.

MR WILSON (PGA): Exactly. Give me a six and half million dollar budget and 20 years and I reckon I could convince people that it's not working quite as well as what they might think.

DR SAMSON: So you can fool all of the people all of the time?

MR BRADLEY (PGA): Absolutely.

MR WILSON (PGA): Let's go back to the single desk debate. You could have held a similar inquiry and you would have got 180 submissions and 179 of them would have said the world would come to an end without a single desk for wheat. The Wheat Export Authority has identified for Western Australian growers between a \$25 and \$35 increase in the price of wheat out of the west coast under a deregulated market. So how important is it the number of submissions one way or the other in your thinking?

DR SAMSON: It's not a numbers game, it's not a popularity game, but we have talked to a lot of people and a lot of people who are closely associated with the system as it is and - - -

MR WILSON (PGA): You say "closely associated". Have you made any attempt to identify just how close the association is? I mean, most of the grower groups around the place are funded by the GRDC. We even see at the WA Farmers Federation Conference they proudly display their GRDC sponsorship. I mean, how many of these groups who have put in submissions have financial links with the GRDC?

MR WEICKHARDT: Can I comment and just say that we've seen a whole spectrum of people during this process. One who appeared at the Melbourne hearings at the end would probably embrace you. He said, "The levy should go, the RDCs should go. God helps those that help themselves. There's enough science out there. The good farmers will get bigger and the bad farmers will go broke and that's a good thing." So, I mean, we've heard from people at that end of the spectrum. We have heard from grain growers directly, levy payers, who, I think, would look you in

the eye and say they're not part of the system, they're not captured by the system, but they feel they are getting benefit.

The question I guess Cliff is trying to get at is is your attitude, you think, because the GRDC are not attending to the needs specifically of the groups that you represent, because maybe you're bigger farmers or because you're in Western Australia and you've got specific issues - I mean, why is it that you think we're not hearing from farmers in the other states, in the main, having the same sort of polarised view as you have. I'm not suggesting your view is illegitimate, but I'm just trying to understand is it because with you as an exception, according to Leon at least, the rest of you are faster learners, not being wool growers. Is that the difference or is it because you are specifically in a sector that the GRDC are really not working for effectively?

MR WILSON (PGA): I mean, the evidence is, from Nossel et al 2009, that since the GRDC came into existence, there has been a negative growth in productivity, despite a 1 per cent investment by grain growers on top of, I think, an estimated further investment by CSIRO, universities, state departments of another 2 and a half per cent plus whatever commercial investment goes into R and D. I mean, they are appalling results by anybody's measure. Someone can stand and tell me you can line up 99 out of 100 farmers who look me in the eye and tell me they're getting a good deal and I'll disagree with them.

MS THOMPSON (PGA): I would say that as far as the 179 other than us that have taken the time to comment, I would hesitate to say 100 per cent of them, but close to 100 per cent of them would be direct beneficiaries of GDRC largesse or RDC largesse. The other ones that haven't commented, I think their attitude toward their levy is the same as our attitude toward the taxpayer money that we were talking about earlier. They've given up. They don't think they can make a difference on it. So, in that vein, we haven't given totally in to cynicism. We're here today. You can't fool all the people all the time because we're here.

MR MCGILL (PGA): I think, Cliff and Philip, you're trying to get some sort of an understanding as to why we have this markedly different approach to things. Our organisation has had a markedly different approach well in advance of the final reform that has happened on all the major commodity fronts, including the localised West Australian land marketing scheme and then the wool reserve and then of course the great wheat debate of the last 10 or so years. We would have come across much commentary which would have said, "How come we go and talk to all sorts of people who tell us that the wheat marketing system is of great benefit to us, to individual farmers, to Australia, et cetera, et cetera and so why are you thinking the way you do?"

I think it's for others to perhaps judge that, but we like to think that perhaps we are a bit more discerning and we have been. We are of a philosophical mind. We

have a mind to really deeply examine these things. That is a feature of our organisation and we are always to the front of the reform movements that have happened in our major commodities. We've now reached the stage where this one needs reforming and, yes, you're lining people up, you're saying, "We've spoken to everybody and everybody thinks it's wonderful, it's good and it's okay."

MR WEICKHARDT: We didn't say everyone thinks it's wonderful.

MR MCGILL (PGA): A very significant number are saying, "The model, the system, I'm getting benefit, et cetera, et cetera." Precisely the same sentiments would have been expressed if you had gone out five years ago and consulted all the wheat industry. All elements of the wheat industry would have said the same thing to you, "No, the system is good. It's working well," et cetera, et cetera. The same thing would happen in the wool industry. I mentioned the localised West Australian land marketing arrangements some now 20 years ago. Exactly the same thing would have happened.

You would have had an overwhelming number of participants in each commodity industry say precisely what you have just said, Cliff, that most people seem to think - and why are we different? For some reason our organisation and the people that make it up have been a bit more discerning, have voluntarily come together to try and bring about these sort of reforms and so forth. That's the best explanation I can give you. Every one of those other commodities that had industry participants supporting the current status quo in some way were beneficiaries of it. There was a lot of privilege and patronage. There was a lot of it all the time.

MR BRADLEY (PGA): Including the current chairman of the GRDC.

MR MCGILL (PGA): The horrendous nexus between, for example, the AWB and the Grains Council and the GRDs that interlock with that is horrendous.

MR WEICKHARDT: We're almost out of time. Can I ask you a hypothetical question. In AWI, as you've mentioned, there's a three-yearly wool poll. You are getting the chance to vote for the size of the levy and you can vote on a range of scores, but one of them has to be zero. In WA if there were such a vote on the current system as it stands today, what do you guess the WA group of grain farmers would vote for? What would be the majority vote, do you believe?

MR BRADLEY (PGA): We would prefer it be done on production. If it was done on production, I don't think it would get as much support as has been indicated by the submissions you have received.

MR WEICKHARDT: But do you think there would be a majority who would vote for zero in the current system?

MR BRADLEY (PGA): They don't in the wool industry, so - - -

MR WEICKHARDT: But I'm interested in what you would guess the outcome would be if there was a vote.

MR BRADLEY (PGA): It would only be a guess, but I'd say the best way to resolve it is to make it voluntary and see how many actually put their money up. You'd get a shock then.

MR WEICKHARDT: I understand that, but a voluntary levy system has other deficiencies. A voluntary levy allows people a free ride, which is the whole reason there's a compulsory levy.

MR BRADLEY (PGA): I think it would be a bit hard to have a free ride on the GRDC because it's not producing anything.

MR WEICKHARDT: Okay. We appreciate your input and I think we've got a pretty clear message from you about how you think. We certainly will take that into consideration. As you know, we have some views that certainly an automatic belief that if you throw money into R and D, you are guaranteed to get productivity coming out at the end is in our view a misplaced faith. You've got to spend money wisely in R and D and you're not guaranteed results anyway. But we're about trying to help the government work out how it should spend our taxpayers' money wisely at least and they are at the moment a stakeholder in the system. Thanks very much for coming along.

MR BRADLEY (PGA): Thank you for giving us the time.

MR WEICKHARDT: Our next participant is Curtin University. If you could please give your name and the capacity in which you're appearing.

MR THORN (CU): Charles William Thorn. I'm the executive director of the Australian Sustainable Development Institute at Curtin University in Western Australia. I'm appearing on behalf of the university through the Office of Research and Development.

MR WEICKHARDT: Okay. Over to you.

MR THORN (CU): Thank you for the opportunity this morning. I think there's a couple of things I want to give context, start at a fairly high level and maybe then work down to some of the specifics on the report. One is that by 2050, we're going to have to produce as much food in the world as we've produced to date. That's a fact. What's going to happen with population increases? Productivity gain is important. Land use is under increasing pressure from a range of areas, water issues, urbanisation et cetera. Western Australia is no different to any other part of the globe facing some of those issues.

R and D is a fundamental driver to actually making sure that we can produce food for those issues into the future. You've picked that up in your Productivity Commission report through some of your food security issues that you've nominated but I don't think we can actually think that we can sit here, turn off R and D in any shape or form into the future and actually be able to produce food at a rate that's needed at a global level. So R and D is a fundamental underpinner to those sorts of issues.

I think one of the other things that sort of not picked up in your report is there needs to be a balance off against - as communities demand more and more of the land resources for other activities such as urban development, a whole range of other things - we see pressures in our south-west system - then productivity gains has to be made on the remaining land use that's available. That productivity has to come through sustainable use and that's an important principle in the future. Whether that's sustainable use around fertiliser utility, water use utility et cetera, there's a whole lot of issues associated with that.

But I think one of the reasons for public-good investment is that there is that pressure happening. It's not like it was 20 or 30 years ago. The world is changing and those pressures are happening, so there is a public-good element from it. The public is increasing its utility of land resources that would have been used for agriculture. There is a quid pro quo to pay for that in my view. I'm not sure your report picked up those sorts of issues.

I think the other key issue is that new industry development is going to be fundamental and new industry development might be small tweaks on current industries or it could be brand new industries that occur. I'm working with groups in the US, for example, looking at new bioeconomies because current economies are going to come under increasing pressures and we can see this right now with our wheat belt. We've just seen probably one of the worst droughts we've ever seen in this country.

That leads to another key point which is that we are going to continue under climate change scenarios to see significant rainfall decreases which means that the variability around commodities' production in this country are going to be highly variable, much more variable than what we've seen in the last 30 or 40 years. So I don't believe you can use a historic approach to what the production levels were by state or by region to actually forecast what the next 50 years looks like. So in a lot of ways, if you have 10 years of quite serious drought conditions like we're seeing at the moment, then you need greater flexibility by the federal government in its levy system. So tapping it and not allowing it to increase when there's uncertainty is a serious issue because you all of a sudden get serious under-investment and that's highly likely to occur. Western Australia is a major contributor in the grains industry to the levy collection at a national level. I think capping is an interesting issue but there could be scenarios which mean that you actually might have to think about lifting the cap to a higher level rather than reducing it under some circumstances. The model doesn't seem to give you that level of flexibility. That's sort of like a bit of a general introduction.

In general, I thought the report was pretty balanced. It tackled a number of the issues, quite difficult issues, in quite a balanced way. But there are some things that I will maybe just specifically pick up. There's probably about eight or nine key points. I think there is room for the new RRA. There's funding gaps occurring, particularly in the areas that I work in, in sustainable development, where some of the social issues are not being tackled seriously because the funding corporations are interested in the productivity part of that. I am interested in the human productivity part as much as I am about the physical productivity. It's an important part of society, it's an important part of communities going forward. So I see that that is good, it's public-good funding, it should be funded by the government as indicated in the paper, and it's an area that I think will come under increasing pressure in the next 20 to 30 years, so I applaud that.

Bringing RIRDC in and what was effectively the old Land and Water Australia I think has some merit, as long as those cumulative effect studies - and that is, how do you actually look at long accumulation, it's called the resilience in systems - how do those things actually start to get studied, which an individual commodity group won't be interested in looking at the systems aspects, a very important part of going forward. As I said, the social impact stuff has to be done better. It's a serious issue

for this state. We've got a lot of royalties for regions going into these sorts of areas now. Knowing that they have long-term impacts for regional areas is really, really important to the fabric of this society that we live in.

One of the other points that I picked up is that I note there's a requirement for greater reporting and there seemed to be a bit of a deficit in actually trying to get a handle on how the RDC funds were distributed et cetera. I noticed that was sort of like a source out of the department and out of the RDCs, so it was probably a bit of a best guess. As a university, we have to report annually to a thing called the "higher education research data collection" and we have to split all of our income by source. There is absolutely no issue for us in splitting those sources into the RDC components which would mean that if the federal government took a holistic view of this issue, rather than a sectoral approach to it, we could actually arrange one reporting of the process which actually satisfied several masters. I'd hate to see another reporting process that comes in that actually creates another workload. That's just inefficiency. So let's get smart about using our reporting systems that already exist. I'm not sure the state department is reporting those sorts of frameworks, so that might be part of the issue, but for a university, it would be easy for us to segment that and that would take a few minutes, rather than create a whole new process.

MR WEICKHARDT: Just on that score, we're clearly interested in methods of improving here and greater minds than mine will need to work on that, but I'm not quite sure that what you've outlined will entirely solve the problem because there are multiple occasions where one RDC contributes to another RDC and then that RDC makes an investment, say, through a university, and disentangling what we call the money-go-round and the leverage in this whole process is extraordinarily difficult, indeed so difficult that mostly RDCs can't even do it themselves.

MR THORN (CU): Yes, I agree that the costs funding arrangements is quite difficult, because we only report on the funding agency. So the entity in which the funds arrive is the only entity which we would report upon, which is fair, because under audit that's exactly what you would do. How it gets to you through those mechanisms has a different complexity. All I'm saying is that we disentangle all of our funds source by category for the federal government, including our own internal investment. So we know what our costs are, if you like, of our inputs to the R and D. A lot of groups actually don't understand the significant input put in by universities to do that R and D. R and D is not a free activity in any shape or form, and the resource is not sitting there waiting to be utilised.

MR WEICKHARDT: Forgive me, I won't get the terminology right, but the grant that comes for category 1 funding - 125 per cent, or whatever - do you directly associate that with the project that you - - -

MR THORN (CU): Yes, category 1 is separated; and then you can separate within category 1, if you wish. That's what I'm suggesting.

MR WEICKHARDT: But you'd also include, would you, the government co-contribution that comes with category 1 and associate that with the specific project concerned?

MR THORN (CU): No, because it comes as a GRDC - an example, GRDC funds, so that would be the category 1 income, we wouldn't separate that into that - you know, .25 or .5 or something.

MR WEICKHARDT: No, I'm not asking you to separate the GRDC's component. But the university later gets a grant from - - -

MR THORN (CU): That's just lumped as a university cost. So it's a cost to the university.

MR WEICKHARDT: Our perspective is that that's still government money. It came, if you like, as a consequence of the GRDC's funding, and indeed the GRDC took advantage of the fact that that money as a - - -

MR THORN (CU): Yes, it's a leverage function. The other issue that people need to understand these days is that the government funding to universities is a small part of the total cost structure now; it's not 100 per cent funded by government, so it's not that simple. So separating out - if it was actually your own internally-derived funds, vis-a-vis a federal government derived fund out of scheme A, B or C - was a bit more difficult to de-tease.

MR WEICKHARDT: We totally agree with you, it is difficult to do.

MR THORN (CU): However, I'd just say to you that there are reporting frameworks at a national level which could be adopted for RDCs through that process, rather than create a new vehicle. I just hate new vehicles that create more work for nothing.

MR WEICKHARDT: The CRC, it was nominated by DISR, "You will be reviewed by," you know, sort of "body X," or "people X and Y". That review I think typically takes place after a three or a four year period.

MR THORN (CU): Yes, about halfway.

MR WEICKHARDT: Halfway. Given that the CRCs are also working on things with long gestation time, how does that relate to your comment about - - -

MR THORN (CU): The first review that would be done in the three and a half was, "Have the programs been set up? Are they operating effectively and efficiently? Are the projects that have been delivered in those program areas working to what the objectives were when the funding was awarded?" Those sort of things. So it really is about, "Is this thing on track to actually deliver a seven or eight year outcome?" It's a midterm review, that's really what it is. I don't believe they're a full review, because a full review requires looking at all the outcomes and all that; you haven't got that at three and a half years in a CRC, not most of the ones in which I'm involved. We're in 17 of them, so we see a lot of them.

MR WEICKHARDT: Right, but do you see, if you like, the result of those reviews having any useful feedback to the CRC in terms of improving things or revising things.

MR THORN (CU): Absolutely. It's really crucial, because there's programs which will kick off faster than others. There's a whole range of issues that emerge in set-up and establishment and these things. So it's a good, early check of that process. I think it's about how you do it, if you do early, and I think that's the question. But if you're going to do a proper review, a full-blown review process, I think you've got to push the time out a little bit.

MR WEICKHARDT: All right. Thanks for that feedback.

MR THORN (CU): We touched on the marketing I think in the previous submission by the previous group on that issue, and there's two points that we pull out of that. One is that depending on which commodity's processes are sort of in, not in, half in, might be in, they're not quite sure where they play in the supply chain. In terms of the whole supply-chain approach, the processing sector is very crucial to that, and they do play in the game, they are beneficiaries of the R and D, and I can quote you an example of some work we're doing at the moment and the sort of issues that we run into. You can talk about industry, demand-driven, that's one. But there is also research push, people don't like it, but the reality is sometimes research push is actually a very useful thing because you don't know what you don't know when you're outside of the actual research game.

An example is that we're just doing some work on looking at new processing technologies for breads. The reality is that the market is very tight, it's a very tight supply chain. There's no sharing across the supply chain because it's competitive, it's competitive both business to business and country to country, in terms of the products that go into it, so low-value, high-value wheat from the US, vis-a-vis Australia, vis-a-vis United Arab Emirates, or wherever else. We might get a lower quality wheat going to that system. So it's a complex market, it's a complex set of arrangements and it's not open, is probably the way to describe how the market is.

However, if you develop new processing technologies that take the breadline from 6000 units to 12,000 and improves the eating quality of the bread and uses a low-value Western Australian wheat and delivers a high-quality product equivalent to bread made out of an American wheat paid at a higher price, and we use that as trying to give a market value for Western Australian growers, because that's important because we're in the export market, then that as a research push model seems a reasonable thing at which to have a look. The commodity groups go, "Where is the return to the grower on the ground, because the benefit might not flow back?" It might not, because the supply chain is so complicated.

So where does that research actually get funded? How does it actually start to move forward? How do you actually start to press the edges in a fairly tightly-controlled supply chain? How do you actually start to work into that, because there might be long-term, beneficial interests for Western Australia. Trying to develop the business cases around that are quite complicated, and, to be honest, we have to sink significant money into those business cases before we can even get to the table of the GRDC on those sorts of things. So that's a good example of stuff that in the commodity group area but falls between the cracks; it's really tough, and if you're only driven by demand pull it'll never get up. So they're some of the issues that I see on a day-to-day basis.

MR WEICKHARDT: We have probably only got another eight minutes or so and I'm sure - - -

MR THORN (CU): I'm just about finished.

MR WEICKHARDT: - - - my colleague has got questions. So if you can wind up fairly soon, please.

MR THORN (CU): Sure. In terms of regional distribution, obviously I'm a parochial Western Australia, so I don't believe in subsidising eastern Australia. They're doing it with our mining industry quite comfortably at the moment. Western Australia is getting lower than its return on just about every scheme that we see at the Commonwealth level. We can look at EIF, the education infrastructure fund, we have been underdone in that. You can look at the current ARC outcomes for Western Australia, we have been seriously underdone on where we would have been, at 10 per cent of the nation seven or eight years ago, we're dropping to around 5 and 6 per cent.

This is happening across the board at the Commonwealth level. This is serious stuff for this state. Everyone thinks just because we're digging it out of the ground and we're keeping the economy going that you guys are all okay over there, it's absolutely wrong. Category 2 income in most universities in Western Australia is falling at a rate of knots. That's state government funding and federal government

funding; it's rocketing to the floor. We're living off industry funding.

DR SAMSON: Well, start where you finish today; with some passion, if I may say. Take grains, as the example, we seem to be having a grains-focused day. Not surprising, given where we are.

MR THORN (CU): Curtin is not a big player with GRDC.

DR SAMSON: Yes, but if you had a responsibility for setting a national research agenda for any commodity - let's assume it's grains, okay - is it reasonable to expect that those national research priorities would miraculously map to the distribution of levy receipts around the country? Is it not almost inevitable if you superimpose a national research priority for any given commodity that it will lead to a re-distribution of the levies beyond their geographic - - -

MR THORN (CU): I think that's what will happen under the national RD and E strategies, as that has already started to occur. That has generally been based on historical capacity built out of a different set of arrangements. Going forward might be different. We tend to use historic processes to this. So if there's an aggregation of capacity in X, Y or Z based on a previous set of funding models, then that drives the new funding model, rather than saying there's actually an opportunity to build capacity in Western Australia, and a serious issue for the west is that we do need to continue to build our R and D capacity. That's been an argument I'm sure you've heard from people, you know, "GRDC would have spent more in the west if there had been more capacity there." You only get capacity if you spend the money; you don't get capacity, then get the money, it just doesn't work like that.

DR SAMSON: Bear with me. I agree with you, you shouldn't base future investment strategies totally on historical, absolutely. Taking up the point where you started though, that with climate change and global warming there's going to be quite potentially a significant shift, there'll be winners and losers in agriculture. So that will change the priority settings. It would strike me though, while we agree it's dangerous to set future investment based on historical, to me it would be equally problematic to set future investment based on the happenstance of where the levies are raised in the first place.

MR THORN (CU): I understand your argument. I'm just giving you a broader argument than the one that you've just looked at. I'm saying, if you go and have a look at all of the schemes, Western Australia is falling behind, on any sort of basis, compared to what is happening in eastern Australia. It's even worse than that, there's cases now where deals have been done as part of the current government formation with the independents: \$20 million out of one funding pop, allocated to one area - and I won't go into the specifics of it - as an example - where the agency didn't know about it at the time, they found out in the press release; I know because I

was in the agency on the day it happened - and the university didn't actually have the capacity to deliver it. That's the stuff that's going on. It's outside the R and D stuff, outside your brief, but they're the sorts of things that are starting to happen, on a national level. It's not good, it's not right, it needs to be addressed.

MR WEICKHARDT: Can I ask you a related question? It should be my final one, because we are just about out of time. Our last participant in the Adelaide hearings made a fairly impassioned plea about his experience with one RDC, where he said basically that scientists were being very badly treated by the RDC and weren't being funded and that as a result scientists were moving out of the field. Interestingly, the first participant we had this morning made a very strong point that they believed in research and that research didn't require RDCs but it did require scientists.

So they recognised that scientists were pretty crucial to this whole thing. I think our next participant this morning after morning tea feels pretty strongly about scientists and the way they have been treated by RDCs. Can you comment on your good experience or bad experience? Are some of the RDCs better at fostering, helping to build capacity, running PhD scholarships and things like that? Are some of them bad at it? Is the model as a whole failing, or is it the execution of the model?

MR THORN (CU): No, the model is exemplary. The RDC model in Australia is the envy of the world. Even if you go to good places like the US, Canada and some of those places - Canada has got a pretty good system - they still look at what we do and go, "That's quite an outstanding model that you have." When you have international visitors here from countries that hardly have any R and D support mechanisms they look at this as the world model, this is the exemplar. That was my experience when I worked in agriculture, we always held it up as such.

I don't shy away from that it has its warts, and one thing is that mixing marketing with the R and D is not a good thing. I think you can do both and you can have levies for both if you want, but you keep them separate, make it very clear that they're separate. That doesn't mean that market research shouldn't be done within the R and D component, but I think you have got to separate the two out, keeping them mixed is not a good part of that model. So to me it has been an exemplar model. It might have a few warts. I think maybe moving to the corporation model created some aberrations that probably brought attention to the RDCs in recent times, and that's just poor behaviour in some ways. I think those things should be addressed and can be addressed, and that's a different process.

I don't think that part of the model is wrong either, where you actually move it to a more corporate basis. I think that was a trial. When it first started a few more went over the years. If I look back over history, has it been a bad thing? The answer is probably no, it just provided a different framework for working in. So I'm not too worried about the two types of models that sit in there, I think we can live

with both. But getting the behaviours right is pretty important.

MR WEICKHARDT: You think that at least as demonstrated by some of the RDCs - not wanting to put - - -

MR THORN (CU): For universities, building research capacity through PhDs is critical, and that happens.

MR WEICKHARDT: Some of the RDCs do that effectively?

MR THORN (CU): Absolutely. It's about how you construct the project. So if the projects are well constructed, then that's the capacity-building that we're doing for the future. Our role is to build capacity in science. That's our role as a university, to educate people and to train them in research science. The RDCs are fundamental to actually allowing us to do that. They like to fund PhDs because they're a cheaper option than funding a standing scientist, which has got huge standing costs to some degree.

MR WEICKHARDT: Thank you very much indeed. We appreciate your input and your submission.

MR THORN (CU): Thank you.

MR WEICKHARDT: We're going to adjourn now till 10.45.

MR WEICKHARDT: We resume the hearing. Our next participant is David Lindsay. If you could please give your name and capacity in which you're appearing today?

MR LINDSAY: I'm David Lindsay, I'm appearing in a private capacity but in the capacity of being a, unfortunately, long-time scientist. I still work as a scientist in another area, in communication science, but I was a recipient for many years of R and D corporation - sorry, not R and D, but the funding from many industries and from R and D corporations as they came in. I was also a member of the wool research committee, the pig research committee and several others that were actually distributing research back in the time before the R and Ds.

But what I wanted to concentrate on was the research side of the thing rather than the administration. I was one of the minority that said I didn't think that the present model was particularly good. In fact I was noted in your report, your draft report, as saying that. But I really don't think it matters too much what the model is. I think there are certain principles though behind the model which, whatever model it is, we should be addressing. Any model that prevents them from addressing those principles I think needs to be tweaked up in order that it does. The first of those is that - the first, and I think the biggest principle, is that research is done by researchers and good research is done by good researchers; so that the priority of any research and development corporation, particularly in the research part of the development corporation, should be to have the best quality and the biggest group of high class researchers that they can get. That's the thing that's going to drive the research in the long run.

I've said in my submission and my second submission, both, that in fact the research corporations don't do any research, it is actually researchers that do the research. The research corporations facilitate - and I use the word in inverted commas there - facilitate the research being done. So that means they've got two roles. One is to take the funds and distribute them in a way that's going to get the best bang for their buck, so to speak. The other one is to husband this human resource that they have in order that they can get the best researchers doing the best research possible. While they have had all sorts of models and varieties of models to look at the distribution of money for research and a lot of the thrust of your report - and certainly in the annual reports from R and D corporations they actually spend all the time telling you about how they distributed the money. It is incredibly rare to find anywhere where they talk about how they are building up their human resource, which is, to me, the key to having a long-term successful research presence in any industry.

In fact in some of the research corporations there have been enormous wind-down in the research capacity. In some industries there are no researchers that

you could honestly say are part of an industry. I don't think - I think it's another principle that if researchers don't feel they are part of the industry in which they're doing research then the industry is not getting the best out of them at all. If they are contracted in from the beaches and the golf courses to do a particular project because they seem to be the best people at the time and then sent out to the beaches and golf courses again to await the next time, then they're just not going to do it. They're not going to be there the next time round.

That has got to the point where in - I use the AWI as the prime example, where there is just absolutely nobody who in the - no researcher in Australia says, "I am a researcher in the wool industry." They can't say it because they're not. They have been gradually alienated from the industry by the way in which the process is done. Now, it seems to me that it doesn't matter what the model is. It's how they use the model in order to make sure that they've got the people that can do the research that needs to be done, because that research keeps changing. The research that has to be done now is not the research that had to be done 10 years ago. I'm not sure and I don't think - I challenge anybody to say what the research is going to be in 10 years' time either.

But certainly the sort of thing that worries me immensely is where a research corporation says, "We are going to check with the stakeholders," which is a pretty vague term in any context, but these are the producers in the industry, "We'll check with them what research they want done and then we will select the researchers to do it for them." They don't ask the researchers what research needs to be done. Well, that's really shutting off probably 75 per cent of the possible research that could be done and probably 99 per cent of all of the innovative - the new sort of things that might come in. So if you've got somebody who is let's say a microbiologist working in the grains industry or something of that sort, working as a researcher in the grains industry, and sees in medical microbiology somewhere some technique, some organism, something or other and says, "Hang on, we could perhaps use this thing for looking at the way we handle bread," or whatever it happens to be. In other words you have antennae out into all the other branches of science, all over the place, if you've got scientists who believe they're part of the industry.

If you don't have scientists as a part of industry you will have lost all of that possibilities of taking research that is being done in other areas and translating it into the sort of research that could be a really big breakthrough, a difference, one like Charlie Thorn was talking about earlier on with his bread making was an example that struck me, as it had to come from somewhere else because people wouldn't have thought about it in another industry. So I believe that's where the thing is breaking down. I don't know, I can recall a personal experience only a fortnight ago talking to a director of AWI who said, "I own a farm and I have owned it since 1982 and I've never used a bit of research on the farm at all in that time." I was gobsmacked with that.

But I pointed out to him a little anecdote that I picked up in the 70s from a CSIRO scientist whose name I forget now but who said when CSIRO took myxomatosis and worked with that and worked with the way in which it should be released and so on and released it, they provided all the funds for all the research - that was back in 1950 - for all the research that has ever been done since. The basis they did that was that - the basis that he could say that was in fact that in the five years following the introduction of myxomatosis the population of the sheep in Australia went up 50 million. 50 million sheep replaced whatever umpteen million rabbits. I said to him, "You haven't got any rabbits on your farm or any significant number of rabbits on your farm. You didn't even notice that, and when you drench your sheep the number of times you drench them, the stuff you drench them with, the pattern you do it with, the things - the precautions you've got to make, they're all the result of research and you're not thinking about that." He was quite surprised, but the thing that worried me was that he's a director who didn't think research was important. That means that a serious researcher in that industry has got absolutely Buckley's chance of ever contributing to that industry. So that's the angle I wanted to point out to you and that - - -

MR WEICKHARDT: Did you get any impression from this individual how they carry out their role as a director of a research organisation if they don't believe in any value of research?

MR LINDSAY: Well, you know, I didn't want to have a stand-up row with him, so I didn't, no. But I - in fact, that particular organisation really doesn't fund - they fund the research through the CRC and that is a tenuous thing as well. That funding is done because of the contract and not because of a great deal of interest either. But I mean that represents one end of the thing.

DR SAMSON: David, as you say, that's one end of a spectrum.

MR LINDSAY: Yes.

DR SAMSON: Within that spectrum do you see examples of perhaps not best practice but better practice that you would like to see more of to address this issue? Who's sort of closer to doing it right than our friends in the wool industry?

MR LINDSAY: Certainly. No, without any question about 10 years ago I was asked to do a review of the way in which research corporations interacted with the farmers, the rural research corporations interacted with farmers right across the spectrum. I looked at 13 - it was a desktop thing - 13 organisations. The one that was an absolute stand-out for me was the cotton R and D. They had certain advantages, most of their producers were in one area.

DR SAMSON: Yes.

MR LINDSAY: They had their headquarters in that area. But the CEO of another organisation said, "We are facilitators and when a researcher comes up to us and says, 'I want to put a submission to you,'" he says, "I tell them, 'Go away,' and give them the name of six farmers they can look at, 'and when you've convinced those farmers that what you are proposing to do is a good thing we will then take your submission on board with their comments, and you've got a pretty high chance of making it.'" Now, a lot of researchers would drop out in that process because they wouldn't be able to convince the farmers, well, that's fine. They shouldn't be doing research in industry using industry's money if they're not in a position to convince farmers that if not today then in five years time there's going to be some benefit out of this research. If they can't do that then they should be going somewhere else. But when they do, you've then set up a fantastic relationship between farmers and - the industry and the scientists that are servicing that industry who then begin to believe they are part of the industry and put in the hard yards even more. So I see that as a - I don't know what they've done since but - - -

DR SAMSON: Well, it's interesting you use cotton as an example. I'd bet a reasonable amount of money that Philip and I would have picked that one as well.

MR LINDSAY: Okay.

DR SAMSON: Some of them, I think - - -

MR LINDSAY: Our RDC was good at that time as well.

DR SAMSON: No reason to think they're not now either.

MR LINDSAY: Yes.

DR SAMSON: In addressing this issue I think some of the RDCs, rightly or wrongly but quite genuinely, think they're fulfilling this obligation by sponsoring PhD scholarships et cetera et cetera. Is that enough or is it a misguided attempt to resolve this or is it just part of a more complicated issue?

MR LINDSAY: No, I think it's mainly how you preface the thing is that rightly or wrongly, and quite wrongly, they think that PhD students can solve all their problems. Cynically, you could say that PhD students - and I think Charlie Thorn said that previously - they are cheaper than technicians. You can fund a - and they are far more passionate. They don't turn the light out at 5 o'clock, they keep going and so on. So you get really keen young minds and young brains and young bodies doing research for very little money.

The big problem is not the business of funding PhDs, it's the matter of when they get their PhD where they go from there. What they do is they leave the industry as fast as they can because they suddenly realise they are not part of that industry and with their skills they can get much better satisfaction elsewhere. That's the pattern that repeats itself over and over again within the system. I think that's a cop-out to say, "We fund this many PhDs," and so on because it's the number of PhDs that are retained there that's the key issue.

DR SAMSON: Though in an industry that isn't as geographically concentrated as cotton - and sugar might be another example of geographical concentration and indeed a concentration of the research facilities for that industry - where you've got an industry that's widely geographically dispersed, what is the answer? I mean if you had your druthers and the answer is not more PhD scholarships, what is the answer?

MR LINDSAY: The answer is you don't have to have everybody concentrate on one little group, you can - I mean, distance is not the tyranny that it used to be. You just develop that model out with the necessary amendments that people don't feel so distant. But the main thing is that you don't have a great chasm between the scientists and the farmers. Most scientists don't work for money, otherwise people would - their intellect would make more money - they want to do research and they want to advance things. They have got all sorts of other reasons that are much more altruistic than making money, but you need to cater for them a little bit in order to keep them around and a good research core is absolutely essential if you're going to get any research done.

MR WEICKHARDT: We had a presentation by the folks from ACIAR and they were making the point that when they evaluate the outcome of the research that they have funded - and of course sometimes that's research overseas - but when they evaluate it, they specifically use the scientists who have done the research to evaluate the outcomes which they acknowledge has got a potential risk that, if you like - - -

MR LINDSAY: Gild the lily - - -

MR WEICKHARDT: - - - the person conducting the research is reviewing themselves.

MR LINDSAY: Yes.

MR WEICKHARDT: But they see the advantage of it is that the scientist actually then does genuinely see how their work has been adopted and whether it's working, and if it's not working, why it's not working and they have that ongoing sort of linkage and identity with it which seems to make a lot of sense to me.

MR LINDSAY: Yes, you're absolutely right. The big thing about a scientist, they

have actually got to be very honest, and like with all the spin that people put on - you know, "We've got this fantastic research that's going to do everything" - if they start to believe that, they're no longer effectively researchers. They have got enough tension there to say, "That's where I should be but I'm not and I need to do this, this and this," and they're thinking about it day and night, under the shower and all those sorts of places, where in fact they're making a lot of their breakthroughs. So it's very much a matter of having the scientists sort of wrapped up in the industry, rather than kept apart, rather than this concept that these scientists are a bunch of rogues, they will try and rip your money off and all that, "We know about them and we'll stop it," and then you tell the scientists, "You don't understand anything about farming so we'll do all that bit and you just get on and do the research we tell you to do," and they become technicians. I've said that in here, they become technicians and they act like technicians. They go and do their work 9.00 to 5.00 and they go home.

MR WEICKHARDT: So in terms of the recommendations that we've made in the draft report and the way you'd like to see them improved or changed in the final report, what specifically would you like us to focus on?

MR LINDSAY: I should have begun by saying I really enjoyed what you've done with the report. I think it's made a lot of very, very positive suggestions. This business of perhaps putting a little bit more emphasis on actually getting an effective research force I would like to see strengthened; that's the main bit in there.

MR WEICKHARDT: One of the things that a couple of the universities have said to us, and there may be some self-interest in this but on the other hand, it may have considerable merit, is that they believe that the RDCs ought to use ex ante peer review of the quality of the science in the proposals that they have sought or the proposals they're considering funding much more than they do. The comment was made that in some cases - and I think you've referred to the fact that the RDCs themselves may not have among their boards and their staff, you know, scientists who are able to sort of really penetrate the quality of the proposals that are put to them from a scientific merit point of view. I assume that that's something that you think was a sensible approach?

MR LINDSAY: I think it's absolutely vital. I wouldn't propose, in an R and D environment, that you have a majority of those people, but you certainly need people who can say, "Hang on, the science behind this" - either - "is hopeless, even though the results currently look good, or, "This looks a bit superficial," but in fact it has the potential down the line - in other words, be able to see the possibility of the science and the outcome, and all of that is guesswork in the end. The big research and development companies, the DuPonts and the Microsofts and all those sort of people, they recognise this all the time, that they are going to be making mistakes along the line. But they say it's got to be cutting-edge research; it's got to be the person who is in charge of the research - not necessarily the person doing it but the person who is

supervising it has got to have a track record, and the research itself has got to be of some interest to us, not necessarily our core business at the moment - we'll change it to make it our core business - and that sort of attitude towards deciding on which things ought to be funded and which should not be funded is an element that I think the R and D corporations could include much more overtly into their systems.

But the use of cost-benefit analysis, I've reported on that, what DuPont do in fact and they say, "Forget it. We get the most competent person we can to make the judgment" - the guesswork, if you like, but informed guesswork - "that this thing is going to be a goer," and we go from there. But if you've got incompetent people who don't understand research and can't have access to people who understand research, then your chances of getting really significant breakthroughs are nil. If you do research which you know the result of, that just keeps things ticking over but it never gets you any further.

DR SAMSON: Some people have said to us that obviously good research, if it's not adopted, is an opportunity lost and that one of the perhaps historical weaknesses with the system, the model, is that there is an awful lot of good research which has been done and paid for and is sitting on dusty shelves somewhere and that one of the things perhaps some of the R and D corporations have not been good at is facilitating that adoption and that if we could actually stop spending money on research and use the money to get the stuff that's already been done out there, we would be in pretty good shape, as an extreme example. Do you have a view on that, David?

MR LINDSAY: Yes, I do. I have a strong answer. I thought the cotton thing was a good thing because the most competent person to disseminate the research should be the researcher because they know the warts and the bumps on it and they don't put spin on it, or they shouldn't anyway, and they know where they're going. That's why having sussed the scientist out as a collaborator with the industry person and found that they are compatible, then you're three-quarters of the way down to the business of disseminating. Little by little, people will check up on the research. They will know what's going on and they check up on it. This is the way you get it disseminated, not by having fantastic glossy brochures that suddenly start putting tremendous spin on things and so on, and incidentally saying, "This is this fantastic breakthrough we've just made. For further information, contact" - not the researcher, but the manager of the particular research corporation, that that's the person you should contact about this piece of research. Well, there's nothing nicer for a researcher than somebody ringing up and saying, "Listen, I've read about your research, can you tell us a bit about it?" They go over the moon, they think that's fantastic, "Somebody wants me," and in doing just the opposite, you're actually turning them off all the time. That's the important thing, to actually get scientists involved in the whole process and not sort of, "You do the research here in this department," and then we pass it through a little hatch and somebody else will now do the next bit. That's just an absolutely false set-up.

MR WEICKHARDT: All right. Thank you very much indeed, David. Thank you for your two submissions and thanks for coming along today.

MR LINDSAY: Okay, thank you.

MR WEICKHARDT: Our next participant is the Kondinin Group. If you could just give your name and the capacity in which you're appearing, please.

MR PRICE (KG): Richard Price, managing director of Kondinin Group.

MR WEICKHARDT: Okay, thank you. We've received from you a submission before the draft report and some notes in regard to some of the things you might want to raise today. Can I just say we're extremely interested in your comments and feedback about the RDC model and ways in which it can be improved. This is not the forum to talk about the Kondinin Group and exactly how you might be involved, so if you can keep your comments at a generic level, that's fine, but this is not a marketing platform for the Kondinin Group.

MR PRICE (KG): Sure, okay. I guess just starting from a high level, having read through the initial report that you've released, observations like I think the extension end of the review has been probably a bit lacking. I think there could be more focus and emphasis on the extension end of R and D in a review. Kondinin Group recently held a conference for grower groups. We workshopped in that process, right from the bigger vision thinking from grower groups as to how they saw the world in that space, right down into the space of how do you actually operate an effective grower group and where should they interact with the R and D process and an extension process. The view put from the floor - and there was about 170 or 180 delegates there - was that for every \$2 spent in R and D, there should be a dollar spent on extension. There was largely a view that grower groups and that sort of grassroots end of farming wasn't necessarily as well connected in that RD and E space as what there should be, so it wasn't perhaps as joined up as what it could be and that it wasn't just holistic across the farm business as what it could be.

So by that, I take that to mean that you might have one particular RDC going into a farming region into a community with a particular agenda which is fine, but we may well then have a disjointed process happening between other R and D efforts, so a duplication, not necessarily as much collaboration as what there could be and not necessarily as much efficiency in that process, and probably importantly not enough joining up of the dots, not a holistic enough approach.

The concept of extension just being something that you would put on the end of R and D is something that I don't think is correct or supported. I think extension is a continuum. It's a continuous process and it's a loop, if you like. It's a circle. It's a continuum in a circle, so it feeds back into the R and D process and that should be a constant process of evaluation and feedback. I think grower groups in general probably don't feel that there's enough opportunity to deliver on that.

Research and development and extension, it's also about entrepreneurialism, it's

also about economic development, it's about a whole range of things that shouldn't persist in isolation to just one particular research outcome. You've got to consider the whole picture.

The other thing that sort of came through I think was that it's the human capital aspect, it's the human resources, it's the capacity of farmers and farm managers on the ground to actually pick up R and D and do something with it. I think there's a bit of a feeling that there needs to be a greater emphasis on investment on the people side of things. Do they have the right skills, the right capacity and the ability to actually convert and adopt research and development outcomes? So those are the main sorts of findings that fell from that.

I think the process of extension in the current model that we have is, as I said earlier, just somewhat a little bit disjointed and I think there's opportunities for the industry to figure out new ways of actually joining up the approach and making that more efficient. But again, as I said, as important as the efficiency is the holistic approach of the different topics, the different research outcomes, joining them up together. So a grain farmer often isn't just a grain farmer, they may have sheep, cattle, and there may be conflict or opportunities in looking at those things more holistically all together.

MR WEICKHARDT: Okay. Are you happy to take some questions?

MR PRICE (KG): Yes, absolutely.

DR SAMSON: Thanks, Richard. I guess one of the new developments that's emerging on the R and D horizon is the primary industry standing committee national RD and E framework and I'm sure you know that's an attempt to strategically rationalise the R and D effort nationally and marshal what appear to be ever-dwindling resources. It's an RD and E framework. Do you see that as going any way at all in addressing the sort of issues that were raised with you at the forum?

MR PRICE (KG): Yes, I do. I think there's the opportunity, like in all these sorts of reviews, for the right outcome or the wrong outcome, but I think from what I hear from that process, I like what I hear. I think it's heading in the right direction, but the devil is always in the detail. I think the fundamentals of what they're talking about and how it's being presented are sound, but the devil will be in the detail as to how you actually implement those findings, those outcomes. Will it result in a truly collaborative framework and how will that be rolled out? Who will do it? What will its structure be? What will its role be? How will existing stakeholders interact with that? If you look at what's happening with the divesting of the extension effort from the DPIs, the state agencies, then it's creating a vacuum in that space and so there absolutely is a need to address that, but as I say, I think there's potentially a right outcome and a wrong outcome and a sustainable outcome.

DR SAMSON: We heard from the last participant - you may not have been in the room so I might paraphrase - that in terms of the absolute importance of extension work, possibly the optimum way to go about that is that you create from very early in the process a working partnership between the researcher and the actual producers and the answer - correct me if I'm not paraphrasing correctly - is not necessarily in the glossy brochures appearing in the mailboxes of very busy farmers. Would you have a view on that?

MR PRICE (KG): On what aspect?

DR SAMSON: What is the best way at the end of the day at the coalface to maximise the adoption?

MR PRICE (KG): People. It's a complicated thing, isn't it? The farmer and the farm gate is a very complicated, complex environment. It's not something you can resolve with just a glossy brochure or just a web site or just a piece of information; it's how you interpret that, it's how does it interact in the community across farms, across the farm business. So to me, yes, you need all those supporting bits of information but you've got to add value to it. You've got to be able to interpret it. You've got to be able to adopt it. You've got to understand the benefit. It's never going to be the case that every farmer is just going to automatically get that by just reading something obviously on a web site. So it's about the capacity on the ground to actually do something with that information and my views on that - and I'll be careful not to get into the realms of a marketing pitch - is that under a national framework, we need a national capacity in place on the ground to fill that void, that vacuum, by the withdrawal of the traditional extension officer, if you like. We need to create people in the community that are a go-to. So regardless of whether you're a GRDC or an MLA or state agency or whatever you are, there's a channel, there's a conduit to get that message out and to get it interpreted and value added to the farm gate. Now, that may be consultancy networks or it may be something else or a combination of all those things, but it needs to be a coordinated network.

MR WEICKHARDT: Can we talk about that a bit more? The Victorian government, in thinking about this issue of extension, have put it to us that they think what they need to do is to maintain what they call the wholesale extension capacity but that the specific on-farm individual tailored to specific farming work should be done by other private individuals. I think what they're saying is that they don't believe there's market failure in that area. They believe that their role as government should be constrained to I guess being the conduit to individual private agents to be able to sort of access information and to translate that then and adapt that to the specific region or farming system that they're talking about. Have you got any reaction to that?

MR PRICE (KG): The sort of train the trainer type model and concept? I think that's a sound approach. I don't have any issues with that. It's whether that joins up between all the stakeholders and all the players involved in R and D is where I think it potentially cannot work or not work as well as what it could. So it's, "Do we have a coordinated approach to that nationally?" So where you have got state agencies that may have a different focus on what they do - so here in the west, we're going down the economic development focus route, rather than so much the science - and where you've got agencies that may specialise or invest more heavily in a particular sector, then it may potentially result in 10 years down the road where you've got great capacity in a particular given sector - like in Victoria, it might be dairy, for example - but that might come at a bit of a cost for other sectors unless we've ensured that that approach of train the trainer sweeps up the good work that's happening elsewhere across the nation or with the stakeholders. So that's where that work that Cliff mentioned before, about the national framework, becomes incredibly important because you've got to make sure that you're picking up all aspects and not just those aspects that that particular agency or state might be compelled to invest in because obviously they're getting the biggest bang for their buck in that particular sector.

MR WEICKHARDT: People have given us I guess quite mixed messages which might be a consequence of the fact that there's no single one answer here or that different regions or farming systems require different approaches. Some have put it to us that there's a huge void been created by the state governments pulling back from some of the direct work they have done on extension. I think one participant in Adelaide claimed there was a huge gap of personnel capable of doing extension work, whereas others have said, "Look, all the people that used to be extension agents for the state governments now have moved in to become private agronomists," so I guess I'm a bit confused as to whether or not one or two of those extremes is correct or whether there's a bit of a variation in different areas.

I guess the potential problem I envisage with the wholesale model that has been described, Victorians are taking back versus the comments you made, is I think you've wisely said this should be a continuum. There's got to be feedback from the extension of, "This looked good. We did it on a trial farm, it looked fine. We've now rolled it out to 15 farms but when we go to farming system A, it doesn't work as well as we thought," or, "There's a sort of direct interaction with something else that we didn't understand," so that should feed back to the research, and I guess a wholesale model almost implies a one-way sort of push out and there would need to be care to try and make sure that there was that mechanism of feedback to the researchers. Does that exist at the moment in your view? Are there interactions of the GRDCs or other agencies who are doing and managing research? Are there sort of training days for agronomists and also opportunities for agronomists to feed back their experiences?

MR PRICE (KG): Yes, I think so. It's not just about the agronomists or

consultants, it's about the whole range of people involved in that space. Yes, I have a real concern about whether that feedback loop is actually working at the minute. If you take the Victorian model, then I think you're absolutely right, is there a danger that you won't get that critical feedback happening? I don't know enough about the detail on the ground of what is or isn't happening in that particular space in Victoria, but I think that's where the concept of an organised national network of people on the ground that perform to a particular set of processes and policies and procedures can circumvent those sorts of dangers; you know, you can build in and ensure. Now, it might be that it is those very people that are being wholesaled to that form that network, but at least in the outcomes of a national framework, you established some kind of process, policies, procedures, a collaborative effort between the R and D stakeholders nationally, regardless of state boundary, then there's a better chance of arriving at that continuum and arriving at that feedback loop. If everybody just does their own model and their own thing, then as agencies, whether they're state departments or RDCs or CRCs, as they do their own thing in their own world in terms of R and D, then there's a greater chance of a disconnect, I think, in that.

DR SAMSON: The other thing we looked at, in this space of extension and adoption, as you know in our draft report we have recommended the creation of this new entity, Rural Research Australia, which in very broad terms we see as taking on cross-sectoral national interest work, as opposed to what we would see perhaps as the core business of the commodity based RDCs if that commodity focused more on farm productivity improvement work. One of the reasons that we thought there was some merit in that proposal was that, given the different nature of those two bodies of work, the cross-sectoral national interest versus commodity on farm, that some of the issues and the strategies that you would need to apply to get the work adopted would be quite different.

Hopefully with the commodity based productivity, there's a relatively clear signal to the producer that there is a quid in this or there is money to be saved in this where some of the other stuff, which perhaps is more long-term, to some people perhaps more esoteric, signals are not as obvious and in fact you're almost moving potentially towards a regulatory end of the spectrum with some of the things, say, climate change, water management, whatever. Sorry, that was a very longwinded introduction to the question. Do you have a view on that?

MR PRICE (KG): I think you're in danger of replicating existing capacity, which is what I thought this was all about avoiding. I would be very surprised if that capacity is not already sitting in CSIRO, for example. I would be very surprised if some of that work is not already being done by universities, by some state agencies, catchment authorities or quite an array of stakeholders. So is it perhaps not more about coming up with national policies and coordinating the approach to that requirement with existing stakeholders than what it is about creating another entity that is in danger of actually duplicating effort that is currently taking place and

certainly duplicating cost in the establishment and administration and running it.

I think the other danger in that is just further creating a disconnect from the understanding at a commodity level that you actually do need to address some of these issues, that they are not stand alone issues and there may well be a buck in it if the industry actually addresses them at those levels. So I would far rather see that there's a stream of work that has to sit across all stakeholders that speaks to those sorts of issues in a collaborative environment, rather than setting up another disparate entity that may have the temptation to become very bureaucratic and set about doing things in its own world as it sees them, which may be a strength, but I think it's potentially a big weakness because, at the end of the day, we're talking about farmers. They're the guys who are going to adopt the stuff that comes out of these organisations.

So if you're not fully integrated to the farm gate and the process of communication and the culture of the approach and the way you deliver it, then I would suspect it's probably going to bounce when it gets there, so I would urge that you look more closely at what is already in existence and what can be leveraged, than necessarily setting up a new entity.

DR SAMSON: I appreciate those comments. You're not alone in voicing some of those concerns and we agree that if this thing were to be set up, if there was any suggestion of a disconnect with the other players in the system, that would be a serious flaw. I guess where we're coming from though, to take your counter-proposal that used the existing system and get that sort of overlay and collaboration, et cetera, at the end of the day, these things are always a value judgment. As we stand at the moment, we're going through a process. We certainly formed a view that notwithstanding 22 years of exhortation for that collaboration to occur, it has not occurred to the degree certainly that the government stakeholder would think would be appropriate for its investment. So that is what we're grappling with. It is a judgment. I totally accept the cautionary notes that you raise.

MR WEICKHARDT: Certainly a range of people have pointed to significant gaps that do exist at the moment that they say nobody is picking up. I guess the point we were trying to stress in our report was not that there be a bright dividing line between private good and public good which some people have accused us of having a naive attitude to. We don't. We recognise there is a real mix in most of the outcomes of research in this area of things having some characteristics of private and public good.

What we've tried to say is government should be focused on areas where there is important work to be done but where the incentives to the private sector to invest are very low, perhaps because the incentives are smeared across a wide range of particular stakeholders or industries. So many people have said to us, "There's a huge number of things that are falling between the gaps at the moment that aren't

being funded," so they have the attitude that they have the attitude that whilst you might argue in theory the current system has the capacity to do this sort of work, in practice it's just not.

MR PRICE (KG): If you're able to identify what the lack of capacity is or the skill gaps or subjects that aren't being tackled, then you're surely able to ensure that the existing stakeholders charged with the task of dealing with such matters are adequately resourced and capable of delivering on it. I attended the CSIRO awards dinner in Melbourne and for an organisation that, up until actually the second half of this year, publishes a fairly significant amount of obviously agriculture-related information that comes out of CSIRO, I was blown away by what those guys were doing and what was highlighted that I wasn't even aware they were doing. We have a network of communicators that deal with all their communicators across agriculture and there was still information and research cropping up in that awards dinner that I didn't even know was ongoing.

So I think there's a serious disconnect. Even if you just look at CSIRO, there's a disconnect and a culture that needs to be addressed in terms of engaging with the farming community. Here we've got this incredible asset to the nation sitting there doing its incredible work, but I don't think it's nearly engaged and connected enough with the farming communities and the grow groups. So we don't even have that loop happening there. There Kondinin Group probably represented the closest thing that came to that conduit with CSIRO up until the first half of the year and then they've canned that relationship. So it doesn't to me send all the right signals at all.

MR WEICKHARDT: We'd agree with you and I think it's the reason why we had suggested, when we looked at alternatives to the RDC model, that we felt the RDC model offered the greatest opportunity to, if you like, fill this void, because there does appear to be a gap between some of the work that goes on at CSIRO and its application.

MR PRICE (KG): Absolutely.

MR WEICKHARDT: Anyone could say good research that's not applied is useless.

MR PRICE (KG): So are we saying that in public investment in CSIRO we're throwing good money up with bad and is the resolution to that setting up another entity?

MR WEICKHARDT: I'm certainly not trying to say the former. In research, of all things, you probably need a number of different models. One size doesn't fit all and, as our last participant pointed out, research is inherently a risky investment. You don't know which bets are going to turn out to be good ones. So having different

approaches is probably a good thing, but having all your eggs in, say, the CSIRO basket or in the RDC or university basket or the state government basket is not a good thing. What we do see is the advantage of an RDC model which can utilise different research providers - in some cases they might be CSIRO - which also has a closer connection with the industry-specific RDCs, and therefore through them with the practices that are going on on-farm. So we're trying to find that linkage that avoids all the research dollars going into short-term productivity-motivated research and at the same time focuses on some of the longer term, blue-sky, societally valuable work which does need to eventually get applied, and that's why we proposed to the RRA solution.

Can you talk a bit about your model of \$2 of research and \$1 of extension. I've spent most of my career in the chemical industry and I remember some wise heads who had been around for a long while used to use a "one on research, 10 on development and 100 on actual application" marketing, getting a product to market. They'd say, "Don't tell me that you've spent \$1 million on research and you're going to get a huge payback for this, because," they would say, "you've still got 110 to spend before you get this product actually fully applied out in the marketplace."

One of the concerns I've had when I've looked at some of the evaluations that have been carried out is that people have assumed that rates of adoption will be extremely high for research which is still at a very early stage of proof out of farm. I don't know what the correct number of dollars is and I don't know who should be spending those dollars, whether it's private agents or whether it's the RDCs, but is \$2 on research and \$1 of extension the right number?

MR PRICE (KG): I wouldn't profess to know the correct answer to that, but I think all that's telegraphing is that there's probably a stakeholder group there in grower groups or farming system groups that are probably telegraphing that they don't think that there is sufficient connection or expenditure in getting the message to them and showing them how to adopt. That's the message I take away from that. I wouldn't focus so much on whether it's two to one, or what the number is at this stage. I think it's the message. It's telegraphing that they don't think that that process is happening as effectively as it should be or could be.

MR WEICKHARDT: Just piggybacking on that then, is this an issue that some of this research is adopted quickly by the early innovators and the farmers that sort of embrace change but then there are a great number of laggards that take a long time to make any change, or is it that the research is proved in one application, one region or one farming system and the RDC then says, "Well, our job is done, we can back off. The world should beat a path to our door," and that in reality the difficulty of further adoption is that it hasn't been proved or demonstrated in different systems, different regions, different farming mixes. Have you got any views on why this adoption rate seems to be a very slow process in some of the cases of the research that's carried

out?

MR PRICE (KG): Some research and some technologies are very obviously readily adoptable and the return on the investment for adopting them is very obvious. Some technologies may have investment constraints at a farm level. So you may have a situation where there's other constraints at work; you know, "I would love to buy that new piece of equipment that's as a result of some R and D, but really under my current farming structure I can't afford to do it, even though I know it would make me more efficient and I could produce more from less and all those great things. There's just constraints, with my control as a farmer, to adopt." So I think there's a lot of that.

Again, farming, there's never one farm identical to the other, not necessarily through geography or soil type but more just the inherent structure of the farming business. So you may have a farmer that jumps out of bed every morning in the culture of, "Well, how can I do this better, quicker, smarter, slicker," all those things, which all feeds into that continuum of keeping their eye on the ball of R and D and the extension that's happening specific to their world, but then on the other hand you might have a farmer next door that's got an identical operation but really he is in succession planning mode, or maybe the next generation don't want to farm, and he's just frankly not interested in adopting anything other than, "How on earth am I going to sell this farm?" or retire, or whatever it might be.

I don't think it's ever going to be as simple as just saying, "Gosh, there's going to be a magic formula that's going to result in that," it gets back to the human capacity thing and the capability of one farmer over here and this farmer on the next-door farm actually having the skill-sets and the culture to engage and adopt. You know, "Are you the sort of person that jumps out of bed every morning and looks in the mirror and says, 'How can I do this better?'" If you're not, then you're probably not even going to care about this subject at all.

MR WEICKHARDT: So from a government policy point of view, how much should the government be trying to focus its attention on the farmer that jumps out of bed and says, "I want to do this better," to ensure, if you like, that there is the sort of linkage that you talked about working there, and how much should they ignore the farmer that doesn't care and just say, "Suffer the consequences"? Or do you feel that agrarian socialism should kick in of course here and that those guys need a leg up?

MR PRICE (KG): I don't think there's a simple answer to this, but there's a combination of approaches or solutions potentially to this. One is, well, we pretty much know who those early adopting farmers are across industry sectors. They're pretty easy to identify right across the nation: they are the members of the grower groups, they are the system farming group farmers, they are the community group members. These are the people who have volunteered and currently pay money and

give of their time to better understand what is out there and how they can do their job better. So they're pretty easy to identify and get a hold of.

At that level it's about recognising that and putting mechanisms in place to make sure that it's as efficient as it possibly can be and as engaging as it possibly can be, and that they're as joined up and focused on their economic development needs and all those things. That aspect can be addressed. The harder component is those farmers who aren't engaged currently and don't have that culture of engagement. That's where I think you've got to be a little bit stealthy in how you actually deal with that. You have got to provide a holistic set of reasons as to why that farmer will now engage, and that comes back to your people, it comes back to your capacity to actually touch those people and affect them and engage them.

Again, if you can consider a network of go-to people in the community - whether they are existing networks of agronomists or ag consultants or whatever they might be or whether they are a combination of that plus new talent - if that contact point is multi-purpose and two-way, then the farmer has got a multitude of reasons why they'll connect with that person. That person or entity will need to have a positive impact on their farming business for not only the reasons of productivity gains or adoption technology, it will have to be an integrated package.

It might be that they're providing services of how to adopt an NLIS system or use software correctly or the latest decision support tools or marketing advice, or whatever it might be, but once there's a person that's identifiable and within a network of a national framework, then if you've got a climate change message, if DAFF has got a climate change message that it needs to get out to all those farmers in a way that farmers will take notice of it and adopt it and take ownership of it, then you've got legitimacy over the process of tapping them on the shoulder and saying, "Look, this is a key issue for the nation, it's a key issue for farmers and we really need to get farmers to take notice and adopt it."

At that point you've got two choices, you either legislate or you reach out to industry to actually take ownership and self-adopt and bringing back in the new structure you've advocated. My concern is that that's very much heading down hiving off expenditure from the existing RDC framework and putting it into a structure which can result in legislation potentially around some of these issues that it would be charged to deal with, and I think the industry and the nation would be better served by actually having the industry leading that charge, if you like, and self-evaluating and self-adopting, rather than by regulating them. That's a bit of a long-winded way of answering it.

DR SAMSON: We're good at long-winded questions anyway, so don't worry about it. This sort of switched-on group of farmers with whom you spend a lot of time, I guess almost by definition, would they, as a general proposition, see value in their

current investment through their levies in the R and D model?

MR PRICE (KG): We serve farmers across the nation on that very subject, on what we have seen as the relevant RDCs to their world. I don't have the results of that directly in front of me right this minute, but there's a range of views on that, from the highest approval rating, if you like, as 86 per cent or thereabouts satisfaction rating over one particular RDC ranging right down to about 28 or 30 per cent for another. So there's quite different perceived value for spend between the different RDCs.

MR WEICKHARDT: That is a public piece of work?

MR PRICE (KG): Yes, if I haven't made it completely public, I can make it public.

DR SAMSON: That would be very good. Given that pattern then, in response, depending on which RDC perhaps you're talking about - which makes a lot of sense - would that pattern be repeated, do you think, if the government were to accept our draft recommendation that over a period of time the government reduce its matching contribution, under the RDC model? We postulate, our logic would say, that the return on investment to farmers of their levies is demonstrably very high and therefore we would expect over time that farmers would actually put more money into the system to maintain the overall size of the investment. Now, many people have argued with us that they don't believe that would be the case. What would be your gut feel on that, the reaction of producers to a reduction in government money over time?

MR PRICE (KG): I think the natural reaction would be one of defensiveness and saying, "That's not in industry's interests to have that happen," I would expect. I wouldn't expect to encounter too many farmers who would volunteer to spend more of their hard-earned money in that space.

DR SAMSON: If the debate is had though and lost, if you like, and it does happen, do you think then eventually some farmers would step up to the mark and increase their investment?

MR PRICE (KG): Obviously some would. I don't think that's unrealistic to expect that some would. It would be a lot to do with their capacity to be able to do so. You'd also have to concern yourself a little bit, in terms of the volatility and sustainability of certain RDCs, given seasonal impacts on production and how the levy system works, which is something that probably needs to be considered and thought about.

MR WEICKHARDT: We're just about out of time. One last question from me.

In your submission dated October 2010 you talk about the issue of the mining industry and government RD and E priorities, and you specifically talk about issues in the grains industry and the fact that the Grains Council of Australia is now defunct. There is now an organisation, I understand, called the Grain Producers of Australia, which is supposed to be taking the role of the Grains Council of Australia. Have you had any interaction with them and do you understand to what degree they represent views of the grain growers in Western Australia?

MR PRICE (KG): No, I think that whole space is an emerging story. For Kondinin Group's part, it doesn't get involved in the politics and the lobbying side of agriculture, so I don't keep myself incredibly well versed in that space.

MR WEICKHARDT: Thank you very much indeed for your input, we appreciate that. Certainly if you could let us have that survey work it would be interesting, and it would be particularly interesting if the sort of attitudes are broken down by region, because one senses that some of the attitudes of either affection or disaffection for individual RDCs relate to the degree to which they are perceived to be helping a particular area or type of farm, and I guess that may come in sort of lumpy bursts. In some cases they may not get a breakthrough that's relevant to a particular farming system for a period of time and then suddenly something else emerges. But we'd be very interested in any conclusions or analyses you draw from that.

MR PRICE (KG): Yes, we can certainly break it down. At the minute it's just presented at a national level. So we'd have a little bit of work to do in splitting that out, but we can certainly have a look at that. It's a survey that goes back a number of years, so you can follow a pattern or not, as it may be.

MR WEICKHARDT: That would be particularly interesting.

DR SAMSON: That would be great.

MR WEICKHARDT: Thank you very much indeed. We are now going to adjourn. We'll resume at 12.45.

(Luncheon adjournment)

MR WEICKHARDT: We're going to resume the hearings now and our first participant after lunch is the Department of Agriculture and Food WA. Rob, perhaps for the transcript if you could introduce yourself and the capacity in which you're appearing and then when your colleagues join you, they can introduce themselves. Thank you.

MR DELANE (DAFWA): Thanks, chair. Rob Delane, I'm director-general of the Department of Agriculture and Food Western Australia. I do expect to be joined by Peter Metcalfe, executive director, grains industries, and possibly Mark Sweetingham, one of the grains innovation managers. Do you want me to start with an opening statement?

MR WEICKHARDT: Please.

MR DELANE (DAFWA): Thanks for the opportunity and thanks for an important report. The department are very big fans of the sort of work the Productivity Commission does. We do think that the light needs to be shone into the sector in which we work and the sorts of things we do on a regular basis. Even if we don't all agree with the conclusions, at least we can review things. I guess we believe that because the sector in which we work is changing very rapidly, as is the general world around us, and what were good settings not so long ago may not be the settings necessarily going forward. So we think the review is timely, we've made a submission and we will be making another written submission which is either on its way to the commission or will be today.

I guess the general comments: we are a very major investor in R and D, have been for a very long time, consistent with what's happening in most, if not all state governments, our total quantum of investment in agricultural R and D is decreasing and is becoming more focused. We have I think in almost all areas in almost all years in the last decade or two been the majority funder of projects in which we've been involved and in general terms have been until recent years usually about a two-thirds to three-quarter equity holder in the majority of R and D corporation projects that we were involved in. We're also, through the commitment of our government, a very committed player in the national research and development extension framework signed off by the Primary Industries Ministerial Council and we have, with the relevant R and D corporation, the lead for grains with GRDC and for wool with AWI. So we are a serious player.

I think we agree with some general thrusts of the commission's review but we have some significant questions and differences with some of the key elements of it. I might just break there and let my colleagues introduce themselves, chair.

MR WEICKHARDT: Please. If you could just give your name and the capacity

in which you're appearing.

MR METCALFE (DAFWA): Peter Metcalfe, executive director for grains, Department of Agriculture and Food.

MR SWEETINGHAM (DAFWA): Mark Sweetingham, director, grains industry development, Department of Agriculture and Food.

MR WEICKHARDT: Thank you.

MR DELANE (DAFWA): Thanks, chair. I think as we submitted when we first met with the commission and in our written submission, we agree with the broad thrust of the question asked about the quantum of investment in agricultural R and D in this country and whether we feel that those investors are getting an adequate return for it. It is a very large amount of money and despite some very impressive benefit-cost analyses results that are around in various forms, the overall conclusion can only be that we're not getting enough back, perhaps unlike where we read the commission's review to have landed, which seems to be largely in the general space of to get a better result in that area, we might reduce the amount of input. We've been taking a very long and hard look at how to improve the impact of that investment. We think that's an area where R and D corporations have perhaps collectively not been as hard nosed as they might be. Between us we've run many focus groups, workshops, surveys and input measures of that type, all too often dominated by the R and D fraternity, rather than the producers we're seeking to benefit. But between us, we've done nowhere near enough hard-nosed economic business and other analysis that would help us pinpoint exactly what R and D was required or what innovation was required and where we should target our investment, and flowing from that, who should actually do the work that would create that and apply that innovation.

So unfortunately it's all too easy to read the commission's report in a way that leaves in the back of your mind all the way through that an aim here seems to be to find a way of winding the Commonwealth's investment back, which is somewhat curious to us because there had been previous work, albeit going back about 20 years, which we think concluded that the Commonwealth should maintain its investment along with the national industries, when in fact state government agencies should cost recover for all of their work, which would be quite a different complexity of investment. Not surprisingly, the commission's report does not spend a lot of time focusing on state agencies, but given that we, at least for our agency, have been the majority investor in the innovation system, the R and D, that was a little surprising to us and any direction by the Commonwealth to reduce its invest almost certainly would have states like our own seriously questioning, if the Commonwealth is reducing its investment, why the state wouldn't be the same and potentially lead to a relatively rapid collapse of the whole R and D and innovation system, which we

think would not be a very clever result. So perhaps we might discuss that point a little with you.

The second point is pretty much around the whole of the R and D and innovation system. We've recently changed our focus to broaden out to achieving innovation, rather than a focus on R and D, because of course a lot of success of our industries comes from international innovation. Under the national RD and E system, it clearly is going to come from national innovation. A lot of the progress has just come from producer and agribusiness innovation and we would like to see more focus on contributors to productivity, profitability improvement from other parts of the innovation system than R and D corporations and perhaps strategic and basic research institutions.

We were also curious about some of the conclusions reached around relative levels of public and private investment. I suspect the commission didn't intend it to be read like this, but certainly our reading implied that the commission was concluding it was okay for there to be private investment spilling over to deliver public benefits, but the reverse was not desirable. We found that a little curious. We, perhaps in a similar vein, wondered how the commission had reached a conclusion through its benchmarking with international comparator countries, many of which have very substantial levels of public support for agriculture in addition to R and D which this country does not.

How the commission's benchmarking analysis worked and could reach a conclusion that perhaps we were over-invested in R and D, it is one of the few forms of assistance provided to Australian agricultural industries in this country and when you look at other countries and not just the United States and the EU, there are very substantial levels of public investment provided to assist those industries. That ought to be taken into account in that benchmarking. Perhaps the next point really revolves around for us a somewhat curious conclusion that, given the R and D corporations are founded on levy payments that come from producers who pay in proportion to the size of their business, that that fundraising should be largely treated as a tax and there was no major drive for those funds to be returned to deliver a benefit, not funds to be returned, but the benefit be returned back to the regions from which those funds were raised. I'm not sure that the commission intended it to read like that or whether we in fact read it accurately, but that seemed to be the conclusion.

You won't be surprised for an organisation perhaps on the wrong side of the Nullarbor in relation to R and D corporations and a whole lot of other expenditure, that we had some difficulty with that conclusion. We have had for a very long time neither an adequate flow of R and D corporation funds, nor an adequate flow of the benefits of R and D corporation investment in eastern Australia flow westward across the Nullarbor, despite a very good road and rail and air system. So we have some questions around the conclusions reached in that area.

Perhaps the last point before we open up for discussion: we were, I think, initially curious about the sort of structural solution chosen by the commission through Rural Research Australia to a functional problem. It does seem to us that for many years the Commonwealth has had an avenue to make clear to R and D corporations the areas that it thought investment should be made in. It's had the opportunity to fund through other avenues, through Agriculture, Fisheries and Forestry and through cooperative research centre funding and other things, to direct national priorities and national public good priorities. It's had the opportunity for the minister of the day to be quite clear to R and D corporations where the government saw its priorities. That clearly does not seem to have worked to the Commonwealth and perhaps the commission's satisfaction, so we'll now look to have a structural solution to achieve the cross-sectoral work.

I think we remain unconvinced that that structural solution is necessary and will achieve a much better result than the various attempts to achieve it to date, but clearly if that's the pathway the Commonwealth goes down, we would work very closely with that organisation. I think they're the, just as an opening, five points. I'll just check with my colleagues to see if they want to add anything to that and then we can open up and discuss them and answer any questions that you may have.

MR WEICKHARDT: That's a pretty fertile menu that I suspect will occupy a lot of time. Thank you for that. That's the sort of engagement that hopefully will help us arrive at a better landing point at the end of the day. Rob, given that you've noted that the states have been overall at least - and I'm not sure whether this is true of Western Australia, but I think you said it was - had been reducing the total quantum of funding into this area, I'd be interested in your comments as to how, from a policy and overall sense, the department in Western Australia have decided what they should fund and what they shouldn't fund, how that fits in with the PISC framework work that's gone on and to what degree it's compatible with the principle that we articulated in our recommendation 5.1 that would guide the Commonwealth's decisions about where it should apply its funding and where perhaps in some cases it should pull back.

Just as a comment, you said you were surprised that we had recommended a reduced investment. We certainly weren't recommending a reduced total investment, but we were recommending that there were areas that the Commonwealth were currently investing in where we felt that private benefits were sufficient that the private industry over time should be motivated to and interested in stepping into that gap. But perhaps you would just tell me how your thinking about funding principles goes and how it fits or doesn't fit with the principles we've articulated.

MR DELANE (DAFWA): I mean, this is a bit of a journey. I think not very many years ago we and I think other organisations were making investments around pretty

much leverage. I think it's been a very unhealthy part of the national system and we've spent a lot of time trying to leverage each other's investment. That remains *de rigueur* in some R and D corporations. It seems a bit like playing the man, rather than the ball really. But we have been through a phase where our investment was often chasing the priorities of an R and D corporation. I think we've been out of that phase now for probably three or four years. Increasingly we've been focusing on the things that we thought we were best placed to have influence on and increasingly our analysis and our close partnership with industry indicated that we should spend a state dollar, irrespective of whether an R and D corporation or other partner was prepared to invest in that activity or not.

That has continued. I think Peter and Mark might wish to add to this, that we are taking now, I think, as hard a nosed view about this as anyone in the country of really focusing in on where beneficial impact is needed to capture opportunities or to address issues. What is needed to bring about that innovation wherever it's required in the value chain and to apply our resources there, we purely seek to bring others in with us, but if they have a different set of priorities, then we will focus resolutely where we've reached that conclusion.

The only other significant influence I think is that we do take very seriously the national RD and E framework which we've argued all the way through should be strongly focused around the importance of the industry sectors. Clearly, grains dominates in Western Australia and so we take grains very seriously. Sheep are still a significant part of the sector here and so we've maintained our investment; we are largely a supported link under the framework in the other areas and so we're adjusting to where we have genuine capability or where we have particular regional issues that need to be addressed.

Do we have a different view? I think perhaps one area where we are emerging to be a little different from the commission is to use some methodology which I think people in MLA use more than others which is to look both at public economic principles in determining where you invest but also to look at system failure principles and working out where you need to address rate limiters, straight failures or other issues that will enable the system to work better. That is taking us a little more off farm than we have been before and off farm more than some of our stakeholders are enthusiastic about. But if the major limitation to industry, profitability, exists off farm, then continuing to invest all your resources on farm simply reduces your return on investment. So to move a little resource away to try and make the whole value chain system work much more efficiently or effectively, create more value and potentially deliver more of it farms seems to be the smart thing. So I think we've got some system failure methodology built in that perhaps the commission has relied much more heavily on than sort of public economy policy principles.

MR WEICKHARDT: Okay. The issue that we were striving to draw out in principle 5.1 that possibly is new in this space is the principle of additionality and saying that, given the fact governments don't have unlimited amounts of money and it costs money for them to raise money, they really should focus their expenditure where, if you like, others are unlikely to invest, otherwise you just ask yourself, you know, how much is enough government money? Some is good and more is better. Some people have accused us of trying to partition public good versus private good. We don't see that at all. We see there being a continuum of public and private good in a lot of research outputs in this area. What we've tried to focus the federal government on in that draft recommendation is invest where socially important work needs to be done, but where there aren't motivations for private investors to invest and where you can genuinely identify market failure.

When you say you're focused on some system failure issues, are they system failure issues because despite maybe glaring economic logic suggesting private individuals should invest in those areas, they have simply chosen not to, or are they where you think there is sufficient evidence of market failure due to externalities or spillovers or things of that sort that you think government intervention is required?

MR DELANE (DAFWA): Probably all of those, beginning with whether the problem is opaque or translucent to those who might invest in it, as to whether it's an industry issue but in fact there isn't an industry mechanism available to fund a resolution - and I'm sure you're aware there are very limited funding options available for industry collectively at a state level, and so you're so often looking for a national funding mechanism even for industry funds to be able to address some of those issues which of course takes you to national levies and R and D corporations which can be a rather long and convoluted task, particularly if R and D corporations are perhaps taking a more narrow focus to achieving industry productivity and profitability gains than I think we are now taking.

MR WEICKHARDT: Okay. Just finally on that, and I'm sorry to be boring, but if in your submission you have some point of difference or some point at which you think recommendation 5.1 could be improved or clarified - some have said to us they think the concept of additionality is difficult to interpret. Well, of course it is; pointing out to the Council of Chairs that evaluation of any research investment involves you considering the counterfactual, "What happens if I don't invest here?" additionality is no more difficult or no less difficult than that consideration. But if you have some method of suggesting an improvement to recommendation 5.1 or some modification to it, we would be grateful because it really is a bit of a launching pad for where we go thereafter.

MR DELANE (DAFWA): Yes, we'll have a closer look at that. I think the last comment I'll make - I'll ask Mark to add to that - is that we think much more focus on analysing really just what needs to be done to bring about beneficial impact,

which will require a very substantial increase in investment by R and D corporations, by the Commonwealth separately, by the states, and we're certainly doing that, will help clarify some of those things. We'll all be clearer about what change is needed, who is going to benefit from it, and where the investment should flow. Even under the current model, I think we'll get a much better result out of the R and D corporation investment and be able to much more transparently see what the Commonwealth was getting for its bit and what growers were getting for their bit under that. While that remains just too translucent in terms of what we're actually trying to achieve, then I don't think we differ from the commission at all in the conclusion.

MR SWEETINGHAM (DAFWA): The point that I was going to add was that in relation to figure 1 which has the four scenarios, I think our feeling was that it looks all a little bit too stop-go. We would agree that scenario 4 is a red light, not a role for government investment there. It's probably pretty clear that option 3 is a green light. I guess perhaps what we're saying is for options 1 and 2, perhaps rather than a cross saying it's a red light, it's a flashing amber light, which means proceed with caution, in the sense that this is a case where there may well be a role for government here, but the analysis has got to be right.

MR WEICKHARDT: Okay. I hear that. We were deliberately trying to be provocative in demonstrating it in that way. You've talked about leverage. This is an area where we're saying how can government leverage its money? Other people have probably tried to look at it from the other perspective in the past, where we're looking at it from the other side. Cliff, over to you.

DR SAMSON: Thanks, Phil. Rob, perhaps if we just explore a little bit this notion of Rural Research Australia and why in the draft report we're recommending that, noting that it wouldn't be your first choice, but if it did come about, you would enthusiastically cooperate. Certainly we don't see this as an end in itself. It's a means to an end. The reason we've come up with this notion is, as we've said in the draft report, we do see the strength of the current model lies where the RDCs interact directly with producers and they focus on what you've loosely called on-farm productivity gain research. As you alluded to, what appears certainly in the mind of the Australian government who have been less successful over time, is getting the 15 RDCs to cooperate and collaborate in the areas of cross-sectoral larger-scale national interest, longer-term work. I think you also alluded to the fact that if that is the case, there's a responsibility all round for why that hasn't been successful and certainly in our report, we allude to the fact that we don't think the Australian government has articulated its needs particularly clearly or consistently to the RDC. But even where you could point to things where they have, as we know almost on any issue, you've got 50 RDCs. On an issue, there's a spectrum of views, there's a spectrum of performance, there's a spectrum of commitment and enthusiasm to the task. We have formed a view - and it's a judgment view, but one formed out of

talking to a lot of people - that after 20 years plus of trying in that area of those larger cross-sectoral projects, we're not getting anything like the optimal return on the investment.

So a solution - and we stress it's a draft proposal - was to create an entity that would focus on these things. It would be its remit to focus. In doing that, we're the first to say that that entity cannot, if it's to succeed, lose connection with the other RDCs, lose connection with producers, lose connection with research providers and with other jurisdictions. The new kid on the block which might sort of be a bit of a glue to help a lot of that is indeed the national RD and E framework. So that's a very long preamble to give you the opportunity to comment on at least our underlying logic. The solution to the problem we've identified, we can debate options, I guess, but would you be reasonably comfortable with our logic that has got us there?

MR DELANE (DAFWA): We would certainly agree that we should avoid stupidity and keep doing the same thing and hope we're going to get a different result, so it's important we do make some change there. I guess in listening to you I'm reflecting on a range of other areas focused on the Commonwealth, but where there have been quite substantial streams of funding certainly within the definition of RD and E of climate change programs and other things out of DAFF and other departments, out of DIISR or CRC and other programs. It's been often very messy to bring those things together.

I think my colleagues will have some comments, but I guess two things emerge for us. Much more investment and therefore clarity around what really is going on in the sector, where the rate limiters are and the genuine opportunities, economic and social, et cetera are and therefore providing much clearer lights on the hill for the applications of public and private funding. If that can be achieved through that sort of mechanism, I think that would be very helpful. It's possible to reach the conclusion of course if you haven't been able to direct the R and D corporations adequately today, how do you actually get them to be more clear about that, so a separate mechanism the Commonwealth establishes to actually shine a very bright light on the sector help focus everyone would be a good thing if it can be used perhaps to consolidate some of the non R and D corporation programs.

Having spent a significant part of my working life trying to establish CCRSPI, the climate change research program for primary industries, with a whole range of players, burnt a lot of energy and effort, but really working against the forces created by structural problems I think largely in the Commonwealth and the way they fund universities, et cetera, if this mechanism could be used to address some of those genuinely nationally important issues like climate change and so that's the way the Commonwealth is going to fund it, as opposed to fund it through three or four different avenues which are pretty confusing for a competitive world, I think that would be a good thing.

MR METCALFE (DAFWA): I think the approach to identifying where we can have the biggest impact in the past has been perhaps on the farm, as opposed to trying to identify it in the supply chain where the inefficiencies are and, as Rob has already pointed out, it may not be on farms where you get the next-best return on that investment. So sorting that out will be important going forward. The thing about that is that it then links the sectors within the supply chain together very well. Where I'm getting to is if you uncouple the public good decision-making or impacts on natural resource management or the environment from the financial decisions and they don't arrive in the same place when the resource managers make a decision, it's hard to get them relevant again.

So if you were talking about making sure that they were connected, we'd actually urge you as much as possible to ensure that they are connected and you push those public good functions as close as you possibly can to where the resource manager is making the decision, so it cannot separate it. NRM is a good example where we've separated NRM out and so we have farm business decisions being reviewed by the consultants and other advisers and then the NRM bit being reviewed separately. They've got to be pushed together so we actually get good resource allocation. We do not need to make that mistake again in this process. Push them together and make sure the paths to market out of that new entity are very clear and have got good incentives to actually ensure that outcome comes together.

MR WEICKHARDT: I think we can all sort of paint what ideally this should look like and we're in heated agreement on a number of those points. The trick will be in terms of the execution of that and, as you say, structure doesn't guarantee that the execution will actually follow that dream, but that's what we're looking to try and achieve. Just on the issue of sort of, I guess, problems in terms of the model or problems in terms of execution, I'd like to come to the point you raised about whether or not there's any linkage between where levies are raised and the research or the benefits that flow from those. You'd be staggered that in this room a number of people have raised that already this morning, so it's sort of a topic that's on people's minds.

The understanding I've developed about the work that was done on the national framework is that people accepted the principle that nationally important research should probably be centralised, the development of it should be done in a regional manner and the extension should be done locally. That sounds all okay and you would hope that across the entire spectrum of work carried out in Australia, that the swings and roundabouts would mean that there would be some sort of gains in one area and losses in another but they would balance themselves out. From the sound of the comments that you've made and others have made today, there's a feeling in Western Australia that this isn't happening. Is this a failure sort of the execution of the concept of central R, regional D and local E or is it that the model is broken?

MR DELANE (DAFWA): I mean, clearly industries differ and there are some very concentrated ones obviously like sugar and, to a slightly lesser extent, dairy, et cetera and we don't buy any argument with those. The broad scale temperate industries which clearly dominate here, we probably, without having heard them, don't disagree with some of the fundamentals of arguments that you've heard today historically and we've fought many a battle ourselves about trying to balance up investment closer to the industry. Clearly under the national RD and E framework, we've moved away from that. I think there is and potentially remains a very serious weakness in the system that has R and D continuing to be dominated by existing or historic capacity, rather than current and future need. To get it right, you have to be very focused on the needs of the industry sector and the businesses within those, including significant regional differences.

I use grains as an example, but sheep and others are the same. Capacity dominates in south-eastern Australia. In grains, the industry is dominated in Western Australia in virtually every year for the last couple of decades except this year. The evidence of technology flow out of the south-east to the west is unfortunately limited. That's a challenge under the RD and E framework which we'll be working very hard on. I think our conclusion will be that it's because there is not enough hard-nosed industry-focused analysis that then leads or drives the investment and it's been much too strongly influenced by the vested interest in the historic and existing capacity of the R and D fraternity which continues to dominate in south-eastern Australia.

MR METCALFE (DAFWA): It changes my business quite markedly going forward with the national - our focus of getting the priorities for Western Australia and doing the analysis and defending those priorities and pushing them to the forefront of the research provides on the east coast is the new business, whereas the business we were in previously was more a collaborative approach where we could add value and linkages and perhaps provide intelligence into it and influence it through that process. Now it's more hard-nosed, analytical and promotional and ensuring that we are getting value back, that's going to be quite challenging, particularly because a reasonably high proportion of that investment is state based, and flowing back the other way is going to be quite difficult to manage.

MR WEICKHARDT: I guess the capacity to do the research - there's a sort of circular argument, as somebody was saying this morning - you've really got to invest the dollars to create the capacity. The capacity won't just arrive in a vacuum, but until you've got the capacity, there's probably a reluctance to make the investment.

MR DELANE (DAFWA): The trouble is we're not a single corporation and the only party really that has the opportunity to balance that off across this very large country and the federation of course is the Commonwealth government, either with its own funding or through R and D corporations. We can't expect jurisdictions to

suddenly rush out to invest in someone else's regional problem. But increasingly, Peter's point is very important, identifying where the priorities are, but we are increasingly also looking to facilitate indirectly or directly the solution from wherever it can be best, most rapidly and most cost-effectively achieved in the world.

MR SWEETINGHAM (DAFWA): That's a really important point I think in relation to grains and I think the GRDC, if you look at their historical investments and the way all the RDCs are orientated, it's orientated on the context that most of the R and D that's going to be important for industry innovation is home grown, and increasingly that's not going to be the case in grains. Things are rapidly changing. If we look at the example of the multinational biotech companies in grain biotechnology, if we're going to facilitate adoption of their technology into big chunks of the Western Australia industry, they are drawn to centres of national capability. Now, to channel all of that potential additional inflow through that south-east corner of Australia is a real potential weakness to again getting those long-term relationships that we'll need between those multinational players and local Western Australian plant breeding companies and the like.

MR DELANE (DAFWA): There's quite a specific example here, and it's grains, where we're doing several quite different things and the state government is investing quite differently, exactly the area where Peter talked about, which is identifying really what the critical needs and opportunities are, and making sure that all the potential contributors to the solution are well aware of those. But in grain genetics of course, that is now dominated by breeding companies, Australian ones or international ones and technology providers, one of which the state government is a majority shareholder in, but has a minority shareholder that has a major technology centre in St Louis in the United States. So there's very, very important technology flows internationally for that particular company, but there are other breeding companies and technology developers.

The state government recently announced an investment in new facilities which would enable us to assist those technology providers, whoever they are, whoever owns them, wherever they're based, to develop and test their material in Western Australia. So there are two large shifts from where we used to be doing this sort of work ourselves, setting our own priorities, managing our own investment, trying to draw others' investment in, to actually now focus on setting the priorities and facilitating the delivery by others.

MR METCALFE (DAFWA): In amongst that, there's some researchable issues to be resolved and previously, we would just simply appoint our own people to do those; now we're actually going out for expressions of interest, a call for tenders in conjunction with GRDC to widen that back out again, to bring the best capability back in to resolving issues, particularly around drought stress in the eastern wheat belt into those facilities. So we're trying to do it differently and trying to draw that

technology in.

MR WEICKHARDT: It sounds very sensible to me.

DR SAMSON: Rob, as we've gone through these hearings and indeed before, the issue of food security comes up quite a lot and at a fairly simple level, people say the issue of food security is very important; you can't, against the backdrop of that issue, even conceive of reducing investment in rural R and D. People use the phrase quite a lot. It's not totally clear to me often what they mean by it or they see underpinning it. In terms of your strategic discussions about your priorities for rural R and D, where, if anywhere, does food security sit and what's your take or what do you see as the issues in food security?

MR DELANE (DAFWA): Good question. I think the first thing to say is there seems to be much more passion than analysis that goes into a lot of this debate. It does largely ignore the realities of global markets that most of Western Australian agriculture is exposed to already and so you wouldn't be surprised to hear growers say, "Bring on some food insecurity and some decent prices for a sustained period." The vast majority of Western Australian agricultural produce is exported, of course, and dominated by grains, so the Western Australian community doesn't have a huge demand for grain and a large part of what we actually consume in our households now is actually processed somewhere else in any case. So there are some free or constrained market and logistics issues which seem to be largely ignored in the food security debate.

It's also clouded a little by this being one of the wealthiest communities in the world, so you would rather think that's going to play out somehow differently for this community than some of the world's poor communities. So if you take a very broad global view and want to make a contribution to global food security overall, yes, we should maintain the investment in R and D. Should it be in Australia or countries where the very poor people of this world really need that is probably a bigger question.

I think the only point that leaps out for me is there are relatively long lead times for a whole lot of this R and D and we need to be clear about those before we put too many sort of short-term shocks into the system, where in fact you do wind down strategic capability, you stop investing in people and programs, therefore organisations like our government stops investing in infrastructure and over a period of time you actually do substantially reduce your overall capability and it takes a long time to wind it back up, particularly if the labour market outlook for this state, which looks like it's going to go on for a decade or more, is very, very tight, and the sort of work that's important for food security is probably not going to be the most attractive for people going through universities in this state for quite a while.

MR METCALFE (DAFWA): So that's the actual food security. The other bit is if you disinvest for long enough, the food security actually bites into the industry in terms of it not remaining internationally competitive or it declines in its ability to be able to compete with other providers, making it more challenging. So you end up with rationalisation of the industry, stranded assets and one thing and another as a result of the supply chain efficiency falling away. So I'm not sure how long you stay out of that argument, but that's part of the discussion that they're concerned about, I guess.

MR DELANE (DAFWA): The argument is a little different for the fresh stuff that's in the fridge. Food with very short shelf life, very fragile supply chains, is a little different, and that's clearly an issue for us, but that's got some critical issues around having customer allegiance to locally produced product, availability of water and land and, yes, there are serious R and D issues there, but I'm not sure they'd be in the top five issues and given a lot of that produce is produced with methodology where the technology is available globally, it needs to be adapted and applied locally.

MR WEICKHARDT: We're really out of time. If there are other issues on that, you might address those in your submission. But can I ask a question and if there's a long answer again, perhaps you put it in reasonably short form. A number of states have put it to us that because of the leverage mentality that has existed in this whole model for some time, that if the Commonwealth reduced its funding to this sector, then the states would reduce theirs too, that there's been sort of a mentality among state treasuries that says, "Well, if the Commonwealth put this much money in, we're prepared to put this much money in," et cetera.

I guess, given your comments about the fact that you're very much looking at how to get better bang for the buck that is invested, no matter how much that dollar is, and that you've now stopped focusing on the leverage gain as much and we're looking at where the state can make its own contribution, I guess, given that and also the work that's been done on the framework itself, what do you see as the linkage between the Commonwealth money and the state money, if any, and I guess the other issue around that that we've asked many people is to what degree do you see the linkage between the Commonwealth money to the RDCs and the incentives of private levy payers to pay a certain quantum of levy, because it's a bit of a confusing message you get if you look at the spread of levy payments versus Commonwealth matching funds.

The GRDC levy payers pay significantly above the matching quantum. In some cases there is an appearance that people sort of hug the matching dollar. So you might say, "Well, yes, it looks like the Commonwealth dollar has influenced the quantum." But in other cases there are industries that are contributing below the matching dollar. It's natural for people to say, if one party says, "Well, maybe we'll pull back," they're immediately going to say the world is going to end and it's going

to be a disaster, but I'd be interested in your comments to what degree the systems are precariously interlinked and if one person pulls back, which the states of course have been doing for a long while, why should the whole system fall over?

MR DELANE (DAFWA): I'm not sure all of the rhetoric around what the states are doing is actually backed by the fact. In fact in my department in recent times, the percentage equity from the R and D corporations department has been going the other way. Whilst we have reduced our investment, R and D corporations have generally reduced it with us faster. So there's obligate linkages that perhaps we don't put so much emphasis on any more, but I think it would be pretty naive to conclude that state treasury and finance officials and treasurers will not ask, "Well, what's the level of industry commitment to addressing this issue and therefore what about the Commonwealth's commitment to dealing with this? Is this only an issue in Western Australia," and so many of them aren't of course.

So we would probably make an argument for a much broader issue and I think we, in recent years, have made the case that there are strong commitments from other funders, albeit in a complementary fashion, rather than trying to tie them all up into a single CRC or project. I think it was a report back in about 2000 or 2001 concluded the states should cost recover for all the R and D done for R and D corporations. Treasury officials don't usually forget or refine those sorts of conclusions. We do think there would be a significant decline in support for state investment if there was a reduction in industry investment and therefore Commonwealth investment through R and D corporations.

MR WEICKHARDT: I'm afraid we're going to have to end it there. It's been extremely useful and valuable and we greatly look forward to your submission. Thank you for coming along and for your participation.

MR DELANE (DAFWA): Thank you.

MR WEICKHARDT: Our next participant is the WA Farmers Federation. If you could give your names please and the capacity in which you're appearing today.

MR NORTON (WAFF): Mike Norton, president of the Western Australian Farmers Federation.

MR HILL (WAFF): Alan Hill, director of policy, Western Australian Farmers Federation.

MR WEICKHARDT: Thank you. Over to you.

MR NORTON (WAFF): Hello, gentlemen. I believe Alan has given you a six-point dot point paper, which you should have, just to kick it off. Our submission will be coming at the end of the week. I guess the key point, commissioners, is that WA Farmers believe the current R and D programs are delivering benefits for both industry and the wider community. This state is a multi-commodity state. We don't only produce wheat. We certainly do have a couple of million head of cattle. Certainly we were a very large wool producing state during the time when wool was economically viable, but there's tremendous potential here for sheep meat production, livestock production and certainly horticulture. We do have an abundance of water in some parts of the country.

So, you know, we believe strong R and D programs across a whole range of commodities is extremely important for Western Australia, but just not the grains industry, even though our Department of Ag seems to be totally focused on grains, which is a little bit unfortunate because the grains industry, as a livestock feed, does have enormous potential in this state to value add some of the other commodities that we do produce. Instead of just getting totally focused on 90 per cent of our grain being exported at decreasing values - which has certainly made a lot of our grain producers' viability sort of rather marginal over the last 10 years for a whole number of reasons, and I think that's why research dollars are extremely important so far as Western Australia is concerned across all the commodities, and just not grain.

Certainly over the last 10 years with weather events as they have been has certainly had quite a dramatic effect on grain production and certainly we've hit the granddaddy of all droughts this year. Certainly frost has been a huge issue for our grains industry over the last 10 years and that's affected viability of our grains industry enormously. So obviously there's widespread R and D work required in that area and I believe a lot of those issues are fairly common right across Australia.

The other issue that we'd just like to make while we're on this point is that - and it's been spoken about extensively obviously - is the amount of return on investment the Australian government gets out of R and D. We're certainly of the opinion that

the Commonwealth government and probably to a lesser extent the states, and the states have possibly abrogated some of their responsibilities in this area, the federal government certainly has a responsibility to keep funding research and development or the R and D programs because at the end of the day, I think you get an enormous return on your investment. It's like a big wheel. You put money in one end and it comes out the other in the form of taxes and GST and keeping people employed and keeping the wheels of the agricultural industry turning.

I think it's fair to say that the Australian farmers have been some of the best and most innovative farmers in the world, so a lot of those R and D dollars that go in one end, put in by yourselves and matched by us, have enormous potential to feed the world, to transfer some of that technology to Third and Second World countries that don't have the same expertise and aren't quite as fortunate as what we are. So I think there's a multi-spend that the Commonwealth government certainly gets out of your investment in R and D, there isn't any doubt about that.

On our second point, WA Farmers does not support the recommendation that the government funding contributions gradually reduce over 10 years. I think this is an investment in the future. Research and development is a very long-term investment. I think in the current environment, to pull back on any of this investment, as I've said in some of my other points, would be a retrograde step and ultimately it would have effect not only on Australian farmers, but certainly our position in the world has been world leaders in this area, so I think that's a very important point that the Commonwealth government needs to take on board. It's very difficult though when you're writing out the cheques, but I think we need to take a long-term view.

Probably our third point is that WA Farmers agrees that there are administrative and operational changes that may need to improve transparency of project evaluation. Future evaluation must be undertaken in association with the specific industry involved. I guess that came out from the last presenters in the parochialism of the states and the commodities that are king in those particular states. Now, Queensland with the cattle industry, WA with the grains industry, I think the Commonwealth has quite a pivotal role in making sure that these programs are carried out cost-effectively and on an equitable basis, that everybody gets to share the benefits of that investment. We all tend to be a little bit parochial in our outlook on life. It doesn't matter where you come from or what you do, and there needs to be a central umpire - the Commonwealth government is that central umpire - to make sure we get the best possible return on these investment dollars and also the matching industry dollars to go with the Commonwealth dollars. This is a very important point and a valid point that the Commonwealth needs to evaluate and look at in depth.

Probably our fourth point is that WA Farmers believes that the funding for framework data collection and program coordination should be derived from the

federal government, not a portion of the allocated amounts towards industry-specific funding. I guess this once again is how pivotal the federal government's role is in the management of these R and D funds and making sure that the R and D funds are spent in the most cost-effective way. We also believe that so far as the new initiative that's being undertaken in the Rural Research Australia model that overarched your existing models, it was probably somewhat of an overkill. We have enough duplication in R and Ds as it is without outputting another organisation over the top and utilise some of the funding from the existing R and Ds. Obviously land research and climate change is going to be very important as we go forward, so whether you set up a separate R and D, why you would set up and overarching one and extract moneys from the existing R and D units as they currently exist somewhat mystifies us. We're not supporting the inclusion of the RRA model.

The fifth one, WA Farmers agrees that the Australian government should establish a mechanism to better inform and coordinate the totality of its funding for rural R and D in alignment with industry's strategic research plans, and I guess we've covered some of this in the opening statement. Obviously R and D is extremely important. It's extremely important that the Commonwealth taxpayer gets a fair and equitable return on his investment, that it is transparent and it is defensible and defensible, so this is an extremely important point that we need to be mindful of as we go forward.

The last point, WA Farmers agrees that the RDCs should have in place effective processes to ensure timely adoption of research results and also for results for completed projects to be widely available. On that last point, we probably waste more dollars on research that never gets used on the stuff that we do. I don't think anybody disagrees with that. I guess it's how we utilise it and how we prioritise the moneys and that's why I think reviews of this nature are timely.

The other point that we haven't covered is private good versus public good. Obviously private investors in research are like any private company, they like to see a return on their investment as quick as they possibly can and when you're doing cutting-edge research, that's not always possible. The great problem farmers have is that some private researchers are much more efficient than government researchers, like departments of agriculture, but on the other hand, they like a very quick return on their investment. Some of those returns on their investment doesn't necessarily help the grower. I guess the current debate that we have on GMs and Monsanto is a classic example where probably the main beneficiaries of the research in farmers' eyes has probably been Monsanto and not necessarily the farmers. There's plenty of documented evidence that highlights the fact that return on investment for farmers is not increasing, the way it used to in the past, and that's causing huge problems.

Alan will present a paper that demonstrates that farmers' indebtedness is going up and their profitability is going down. That's been going on for quite some time.

It's certainly affecting the younger generation. It's certainly been a disability factor so far as the younger generation coming in to agriculture because they see it as a high-risk industry now, the amount of capital that you need to be able to get a return on your investment is being somewhat questioned and I think it's for that very reason that we need effective research and development programs that clearly relate to profitability of agriculture, and agriculture right around the world has been slipping for the last 30 years, and just how we turn it around is going to be I think a very interesting model to follow. Thank you, commissioners, I've probably covered most of the main points.

MR HILL (WAFF): I think in the interest of working in a fairly tight time space, anything else that I would add at this stage, I'm sure, based on earlier discussion, we might visit across the course of our opportunity here, yes.

DR SAMSON: Thanks very much, Mike, for those points. Perhaps I will start off just focusing on this draft recommendation to create a Rural Research Australia, and you question quite strongly the need for such an entity. But in doing so, I think you did acknowledge the importance of some of this cross-sectoral larger-scale work. At the risk of repeating what I said a little earlier, we have formed a view, and it is a judgment at the end of the day, that when we look at how well the existing model has delivered on those cross-sectoral national interest projects over some, what, 22 years now, with some exceptions, the result is not great. Notwithstanding being asked, told, cajoled, whatever, the totality of the model has not delivered. Some RDCs have done better than others and that's always the preface for this. There are 15 of them and we should never, on almost any single issue, tar them with the same brush. But as a model, as an entity, in recent times as far as the government stakehold is concerned, it has failed to deliver.

We have yet to be convinced by people who say, "Look, leave it as it is. We actually hear you this time and we will do it." The RRA is not an end in itself. It's our current thinking of how you would get that necessary collaboration and cooperation between the entities to actually focus on not just those cross-sectoral national interest large-scale things but people do almost continuously point out to us bits of very important research that don't obviously have a commodity tag on them and therefore none of the existing 15 sort of rush to get up to the plate and put their hands in their pockets. So that's the thinking. We're hearing a lot of feedback on it. Some people are reasonably comfortable with it. Some people are expressing quite strong views to the contrary. But that at least, what I'm trying to explain to you, is the basis for us to getting there - - -

MR NORTON (WAFF): We hear what you say loud and clear. We had quite an extensive discussion at the National Farmers Federation last week, trying to get our minds around the model that you're trying to perpetrate. I think it's fair to say that we aren't quite sold yet on where it fits in, how it's going to make the process better and

how it will be more cost-effective than what we currently have. We accept the fact that some of the RDCs aren't performing as good as others, but I don't think we should measure all the RDCs by the lowest common denominator. I think we should perhaps look at the best ones and see how we can bring some of the poor performers up to the better performing models. But whether the RRA is going to do that, we're a little bit mystified.

MR HILL (WAFF): I think it's also worth at this point noting that there's certainly no shortage of examples where individual RDCs are conducting research which is similarly themed without much interaction with the other ones, and even within some of the RDCs, it's not uncommon to find, certainly on those broad cross-sectorals, adapting to climate, water use, where there may be similar research going on in isolation. So there's a need for some efficiency gain there and we wouldn't question that. I guess where we've come to the position that we have is: is that an inherent weakness of our current system which is malleable and can we impact on that, and is the best way to do that to establish another RDC? If we're having problems with 15, simply adding another one is a solution that we're not, as Mike says, completely sold down.

Having said that, part of our opening statement was a recognition that there does need to be some work, there needs to be certain elements of an application of return on investment on some of these projects and we would support that. I think where we are is saying that that's a step we believe is necessary prior to going into this establishment of another RDC which would obviously add cost and compliance.

The other one, from a farming perspective, it's not uncommon, within one or two hours from here, to be on a fairly mixed farm that may be contributing to five or six streams of levy, which means that on any given day, they're likely to be inundated with research outcomes, with updates, with very valuable information that they simply don't have time to read - not only read, I should say also process and then implement. Our position on that is some simplification in that area would be of major benefit rather than adding further to the knowledge without transposing that into an on-farm change of practice.

DR SAMSON: Okay, thanks.

MR WEICKHARDT: Can I turn to the point that you made at the end of your presentation. You were talking about farmers' indebtedness going up and profitability going down. You said we need some R and D that increases the profitability of farmers. I can understand that this is the desire but in my experience in business, there's no law of commerce or economics that guarantees a particular industry will be profitable. We live in a global marketplace and it's a competitive marketplace. In some cases, I accept that these markets are interfered with by governments, but there's no guarantee that spending more R and D is going to

improve profitability in some cases. R and D itself is risky. So I guess the issue for governments and indeed for the private investors is investing where there's the greatest chance that you will see improved profitability or productivity which will lead to improved profitability, but there will inevitably be adjustments required. In some cases, you're not going to find that even if you poured lots of R and D in, as a cost, you're not going to find a return on investment there.

MR NORTON (WAFF): We accept that philosophy and that point of view. We've done a lot of analysis over the last few years and some of the historical data going back 20 or 30 years in relation to farm profitability and farm modelling demonstrated that farmers with lower acres, lower unit livestock or production units were quite profitable, and when you look at some of the data over the last two or three years, it is quite frightening. I know DAFF are doing a lot of modelling - in the bowels of DAFF in Canberra - right now and I think agriculture has come to a bit of a watershed, with the value of the assets, the value of the input, the profitability margins are very slim and you only take a season like we are having in this particular state at the moment and it really tips a lot of farmers over the edge.

I've had extensive discussions with our Department of Agriculture and I believe that their model for Western Australia agriculture is wrong and we've strongly advised them to go back and sort of reappraise their model as to where we should be going to put a model in place in Western Australian agriculture that can manage commodity downturns, can manage weather events, and still at the end of the day come out with quite a profitable unit, because that's not being proved to be the case in Western Australia at the moment.

MR WEICKHARDT: When you say to "better manage", is that a proxy for you saying you want the government to chip more money in when things are tough?

MR NORTON (WAFF): No, we don't. That's the last thing farmers want. The last thing farmers want is to be propped up, but they want a clear direction. Especially younger farmers, they ask me quite regularly, "Is there a future in agriculture?" and that's pretty difficult to answer at the moment because they could certainly see futures in other careers and that has a long-term effect to the Commonwealth and state governments. If you look at the graph going back to the mid-70s, about the mid-70s was a watershed when the average age of farmers started to climb, and it had a lot to do with profitability, it had a lot to do with the younger generation going to university and not coming back in to agriculture, and of course that average age of farmers has risen enormously. It went from 45 years to in the mid-50s, late 50s. That's got to be a huge concern. We're putting all this money into R and D, but you've got a whole bunch of blokes running an industry that's on the verge of the old-age pension. That's got to be a concern. So I think we need to go back and instead of just putting money into some of this front-end cutting-edge stuff, perhaps look at our model, because as I've said, we've discussed it with the

department, I don't think our model is quite right for the moment for the type of environment that we have to live in in Australia with government policy going the way it is and weather events, international commodities. Australia is not what it was 30 or 40 years ago as far as agriculture is concerned.

MR WEICKHARDT: Okay. Thank you very much indeed for appearing. We appreciate it and thanks for your submission.

MR NORTON (WAFF): Thank you.

MR WEICKHARDT: The next participant is the WA Fishing Industry Council and National Seafood Industry Alliance. If you could give your names please and the capacity in which you're appearing today.

MS CRONIN (WAFIC): My name is Anna Cronin. I'm the chief executive officer of the WA Fishing Industry Council and I'm also the chair of the National Seafood Industry Alliance which represents the seafood industry across the country in the state jurisdictions in the Commonwealth fisheries management jurisdiction, as well as the National Agriculture Council. My colleague Neil McGuffie is the R and D manager at WAFIC with me.

MR WEICKHARDT: Thank you. Over to you.

MS CRONIN (WAFIC): Okay. Thank you, commissioners, for holding these public hearings. I've been listening with interest and reading the submissions from people in the other rural producing sectors about this inquiry and I must admit from our point of view, from the fishing industry point of view, we have very strongly welcomed this inquiry. It's probably long overdue in fact.

The PIERD Act has been going for 20 years and it is clearly opportune to review that and to make sure that the public investment in particular that goes into rural R and D is actually yielding benefits for the community and hopefully enabling industry to benefit directly as well, as well as rural communities in particular.

I think there's clearly scope for some reform, even in the case of the Fisheries Research and Development Corporation which is very strongly supported by industry and responsive to industry, but nonetheless as I discussed in some informal meetings I had with Commissioner Samson, there's clearly some issues in terms of government, the federal government being the major stakeholder in these corporations, having concerns. I think it was almost a year ago now that Minister Burke, who was then the minister for agriculture, fisheries and forestry, made a very, very clear speech at the Press Club which made it very clear that his patience had been sorely tested with some of the RDCs and their failure to respond to some pretty reasonable governance issues that I think he had raised with them.

I think that's really the starting point for this inquiry and what's been going on. As I said, from a fishing industry perspective, we certainly welcome the inquiry and we welcome the opportunity - it's given us from an industry perspective an opportunity to engage with the FRDC on these sorts of issues rather than the sort of day-to-day stuff, and I have found the FRDC very responsive to doing so.

I guess from our point of view it's important to differentiate the FRDC from the other RDCs because there is a significant element of public-good nature in the

research that they invest in and that's due to the common property nature of fisheries and the lack of distinct property rights, I suppose, and the fact that in state and Commonwealth waters, the waters which are fished are community owned. Fishermen, whether they're recreational or commercial, are only there by dint of licence for a period of time over either a species or an area of water.

I think from a commercial perspective in the short time I've been involved at WAFIC, it seems to me that industry has largely found its needs responded to through the FRDC process. I think there is some scope for improvement in that. At the moment, the FRDC has a jurisdictional set-up that's based on the states and the Commonwealth. These bodies called the Fisheries Research Advisory Boards operate in each state and at the Commonwealth level and they're the vehicle through which industry brings projects to be considered and the FRABs, as they're called, then make recommendations to bring them forward to the FRDC. The FRDC can also do some things a bit separately to that process, but that's the process by and large through which research projects are actually I guess enabled from an industry perspective or a recreational perspective or an indigenous perspective indeed.

The FRAB in Western Australia is obviously the one that covers the biggest geography and I guess we have a very strong view that fish don't really seem to respect orders very much and we actually feel that given the nature of the similarity of issues, whether you're in the tropical north or the temperate south, it might be better to look at the jurisdictions in terms of how fisheries' research is undertaken by bioregion. So perhaps Western Australia would still be a bioregion, or at least the southern part of it would be, and perhaps there should be a bioregion for northern Australia and a bioregion for southern Australia as well. So that's something that we believe could be an opportunity to streamline the FRDC structures and make them perhaps a little bit more technically efficient and perhaps a bit more responsive to particular types of research in common areas. So that's something that we've certainly put forward.

I guess another area that we believe that there's scope for improvement as far as the FRDC is concerned - and it's not a criticism of the FRDC, I just think it's a gap in terms of data collection - is about the economic data that pertains to the fishing industry which is very, very thin on the ground. It's very hard to get accurate, up-to-date economic data about the fishing industry around the country and as a result, decision-makers at the Commonwealth or state levels who are making decisions about marine planning or whatever, in my view do not make those decisions based on the full information about the potential impacts, economic and social, of those decisions.

So the FRDC has clearly focused on more biological type of research, not that it's not industry focused, certainly it has been. There's been a lot of research into things like how to keep lobsters alive for longer when you export them to China,

which basically adds a lot of value to that particular industry, and it's a good technical hands-on delivering results type of research. But I guess one thing that I do think there is scope for some greater R and D effort is in that economic part of it, because I think often decision-making, whether it's marine planning or fisheries management issues, they often are made in the absence of accurate economic data and therefore in the absence of accurate assessments or impacts on coastal communities.

So those are some ideas that we had in terms of focusing on the improvements for the FRDC. One of the recommendations in your draft report is talking about amending the PIERD Act to enable the FRDC to actually undertake some of the industry promotion and marketing work. I guess in this sort of RDC world, perhaps some of the marketing work or marketing activity has got a bit of a bad name in some quarters. It's not an activity that the FRDC has ever been able to invest in and from an industry perspective, we certainly support that recommendation as one of the recommendations we made to you and we welcome the fact that you've acknowledged that because one of the major challenges from the fishing industry perspective is to make sure that we obtain and improve the community support for our industry. It comes back to this social licence to operate concept.

Where we're particularly let down is we're very vulnerable to attacks from environmental groups and so on about how fisheries are managed and the activities of fishermen. We would dearly like the opportunity to put the other side of the story and to explain to the public that the fishing industry is by and large environmentally responsible. They have undertaken a lot of initiatives off their own bat to try and improve their environmental practices on board and on shore and basically to explain to the broader community that the fishing industry is actually very important to coastal communities; yes, there is always scope for improvement but the fishing industry is an industry that supplies fresh seafood to metropolitan Australia and rural Australia and these coastal communities are worth preserving and ensuring that the industry can continue to operate in a sustainable manner.

I think often our industry is, as I said, vulnerable to attacks on that point, so if the FRDC was actually able to invest in some initiatives and activities that would enable a more accurate perspective about some of those issues in front of the community. We believe that that would be of great value.

One of the messages that the federal government has been making to us recently and celebrating, which we're delighted in, is the fact that Australian fisheries are well managed. We have very high standards of fisheries management at the Commonwealth and state levels. That's why the rock lobster catch in WA has been reduced by two-thirds; it's because it's actually well managed because the minister is responding to scientific evidence that is telling them that there's a problem there. I don't think that we necessarily do a very good job as an industry in getting that point

across, and industry does obviously invest and contribute to the FRDC. We'd be delighted to see the FRDC liberated from its current restriction and able to undertake some sensible investment in that industry promotion area.

So those are some of the points about the FRDC that we were keen to raise. I was very interested in your suggestion in the draft report for this body, Rural Research Australia. I think that there's so many issues that are common to rural Australia - and when I say "rural Australia", I mean coastal Australia too, the sort of coastal communities that are rural - economic, environmental and social issues which many of them share and which I'm not sure have really been picked up that well in terms of research subjects by RIRDC. RIRDC is a strange beast in that there's a role for generic rural industry research and also it has a hybrid of other commodities that it undertakes research for and it seems to me to be a bit of a strange mix. I think it's very important that there is a vehicle through which government can be advised about the impact of decisions that it may make across a whole suite of issues on rural communities, not just the economic and industry side of it but on the rural communities.

From a fisheries perspective, there's a Commonwealth marine planning exercise under way at the moment. It's a process which has got bipartisan support. It's very important that we can explain to the federal government the impacts of some of their decisions on some of the coastal communities and their social and economic fabric. As I touched on earlier, unfortunately at this stage we really don't have the data and the information to be able to do so. So I was certainly quite excited by your recommendation in the draft report about Rural Research Australia. It seems to me that that could really fill a vacuum in terms of looking at broader federal and state issues and their impacts on rural communities, not just the sort of rural industry focus that perhaps RIRDC has been restricted by.

I guess from our point of view, just to sum up, the future of the fishing industry vitally depends on our ability to maintain access to our resource, and we constantly struggling with perhaps green-tinged efforts to restrict fishing and to demonise fishing as a whole or particular aspects of fishing. So we really need to try and explain back to the community that we are doing a valuable service. But I think also one of the reasons why industry has been willing at a national level to perhaps over-invest in the FRDC - I mean, I understand that we pay more than the 0.25 per cent of GVP that is the starting point for matched funds, so that seems to me to be a pretty good indicator of the way in which industry finds the FRDC responsive to our needs; the fact that the FRDC has focused in recent years on projects which will have a benefit either in terms of reducing the costs or improving the value of the product, and I think increasingly we need to get into that area about boosting the level of community support for our industry to try and secure access to the resource because if we don't have access to the resource, it doesn't matter how profitable we are, we won't be able to continue. So I might just leave my comments there,

commissioners, and thank you again for the opportunity to give you a short overview.

DR SAMSON: Okay. Thanks very much for your contribution today and for your earlier submission, much appreciated. Could I explore with you just a little bit this issue of the social licence to operate because your industry in my view more than any other that we have spoken to takes on that responsibility and sees it as part and parcel of doing business, whereas some other industries, commodity based, don't quite see it that way, don't see it as their core business. There's perhaps less concern of possible polluting of the Great Barrier Reef by some land based industries. Can you give us an insight as to what is special about the industry you work in that makes that as part of the DNA, you do it happily, you do it responsibly, where it's perhaps not the case in other industries?

MS CRONIN (WAFIC): Yes, I think, Cliff, it comes back to property rights. If you've got a farm on the Great Barrier Reef, a sugar property, say, and you're producing sugar, you have terrestrial land, you can see your property, you can farm your property, you've got a land deed that tells you you can do various things. If you're a fisher, you go out there, you have a licence to operate, it might last a year. You don't own the territory. You might own some quota. But you know that the government can very easily stop you fishing by removing your licence. Sometimes in terms of fisheries management, that can happen without any compensation. In WA, if a marine park is developed at the state level and that requires licences being taken out, then they are compensated for.

If there's an impact of a port or a big oil and gas development in the north that has an impact on fishing, then it is expected that the proponent will pay to take that out. But if you are out there fishing, as many fishermen were out at Fremantle just recently in the last few years and politicians decide that that fishing is a little bit too close for comfort and it's a bit too visible and it's not very nice, they don't like the look of it, then they will close you down without any compensation. So I think the fact that the fishing industry is perhaps a lot more sensitive to this issue of social licence to operate and wanting to demonstrate that it is in fact environmentally responsible as an industry and wanting to do the right thing by the community and the environment, it's very much part of how they see the maintenance of their actual commercial licence, I think, whereas if you're a farmer up in the sugar fields of North Queensland and some of your wastewater is going into the Great Barrier Reef and it's doing some damage, you've got to wait to be caught from somebody under the EPA to come along and fine you or restrict you or regulate you.

You know that's going to happen so you probably have an incentive to be good, I would have thought, to be a good environmental manager, but if you're not, there is something that's going to happen, whereas I think from our industry's point of view, around the country, not just in WA, there are so many examples of where fisheries

that are close to shore that are perhaps pretty visible to local communities and perhaps they are close to sea-change communities where you've got people who have got a little bit of a green tinge and can afford to have one, where perhaps they don't like the visibility of trawlers going out and they think it's bad. So I think that's one of the reasons why in the 18 months or so I've been involved with the fishing industry, I've really picked up that there is much greater preparedness, as you say, and it is instinctive almost as part of the industry.

Another question is how well we do it. I'm not sure that we have done it very well as an industry, and that's one of the reasons why there is so much support for the PC's recommendation in your draft report that in the case of the FRDC, the PIERD Act be amended so that some of that work about building community support for the industry and putting the facts on the table is really valuable to industry. But I think your point is very well made. It's something that I've noticed in the time I've been here but I think, as I said, it probably comes down to security of property rights.

DR SAMSON: Thanks very much.

MR WEICKHARDT: Just on the score of amending the PIERD Act, provided levy payers support this, to allow the PIERD Act organisations to take on a marketing responsibility, we have the southern bluefin tuna industry present at the Adelaide hearings and their position was I think that they didn't support the concept of the FRDC taking on a marketing responsibility. They said if that were put to a vote, they would vote against it and I guess the issues they raised were concerns that they said the fishing market in Australia is 80 per cent supplied by imports.

So I guess by inference they were saying, "We're going to do work on the market overall and a large amount of the benefit is going to go to the importers, rather than to the local industry." I think there was also an element of them saying, "We're big enough and happy enough to look after ourselves," and they also then pointed out that 99 per cent of their catch is exported and they get EMDG grants, so I guess there was an, "I'm all right, Jack," type of sentiment behind that. Have you got any sort of feeling about whether they are an exception here or whether the industry overall in Australia would be likely to embrace the collection of levies from the producers for marketing activities?

MS CRONIN (WAFIC): This is an issue that is of some contention, I guess, in the industry. The idea of an additional levy to fund marketing I do not believe has huge support in the industry. That's not my pick-up from chairing the National Seafood Industry Alliance. I don't get that from WA at all. The current levies that are put on industry to go to the FRDC, what, from a National Alliance perspective and a WAFIC perspective we would like to see is that the FRDC be able to use some of the money that it currently raised to invest in industry promotion. This is a bit different to marketing.

There is again an issue of contention in our industry about promoting the consumption of seafood. Fine. That's probably not a bad thing to do. Those proponents of the idea that we should be doing this are basically saying that if you shift the demand curve out, then we all benefit from that because there will be more demand for local seafood as well as imported seafood. I think there's a lot of industry disquiet about that and I can see where the southern bluefin tuna people come from.

I think the thing that I do detect industry has more agreement about is the notion of industry promotion, and that's a little different from marketing, I suppose, in the sense that it means, "Let's put out a picture of our industry that talks about its contribution to the economy, its contribution to coastal communities, the fact that it is environmentally responsible, the fact that Australia has the world's best fisheries management. If you buy Australian fish, it is sustainable." Those are the sorts of message that I detect industry supports. I think it's a bit different to the marketing idea.

There is a group in the seafood world that is seeking industry support for a marketing levy that would include basically marketing seafood, whether it's Australian or imported seafood. I don't detect a huge amount of support amongst industry for that. As I said, I think industry is more comfortable with the idea of trying to improve or strengthen the social licence to operate by putting out a more accurate picture of the way industry operates and its importance to Australia and rural communities in particular. So I think that's a little bit different.

MR WEICKHARDT: So what stops the industry association from doing that now? Why does the RDC have to be involved?

MS CRONIN (WAFIC): A lack of funding. The industry associations in Australia are not, by and large, well funded. Western Australia is probably an exception because the state minister uses his taxing powers to levy industry and he's recently embarked on a new system whereby WAFIC gets 0.5 per cent of GVP. He's levying a 5 per cent access fee for access to the fishery on top of that 0.5 per cent for WAFIC and on top of that 0.25 per cent for the FRDC. So the minister is doing that now. We didn't actually agree with this particular approach, but that's another story, but that's the way it is. In the other states, it's not the same. They are much more vulnerable. They don't have the money. Even with the 0.5 per cent at WAFIC, we're not exactly rolling in it to the point of being able to invest in the sort of dollars that we're talking about

One thing the WAFIC board has recently decided to do is to quarantine \$100,000 to kickstart a campaign from a WA perspective about this industry promotion stuff. So, yes, we are putting our scarce dollars where our mouth is, but we also believe that in

terms of the FRDC's activities, it would be quite reasonable and effective and acceptable to industry, I think, by and large, if it were to use some of the money currently collected for boosting community support type activities on an industry promotion level. But, as I said, I can see where the southern bluefin tuna people are coming from and I do think that they're right in that there is disquiet in industry about the marketing activity. I also don't think the idea is that the FRDC would be doing it itself; it's about where the FRDC would invest in doing it.

MR WEICKHARDT: Just one last one from me. We've talked a lot to other industry associations and RDCs about the work that's gone on in this PISC framework, looking at sort of rationalising research activity around Australia. I'm interested - and, sorry, I could have asked the FRDC this, but I didn't - to what degree have the fishery folk been involved in any of this or has this largely been a land based activity, do you know?

MS CRONIN (WAFIC): I must admit I'm on the periphery of this a little bit because Ross Magarin, my colleague in Victoria, represents the National Alliance on this PISC framework for fisheries and so I guess I've abdicated it to him a bit. We have certainly been involved. The FRDC has been involved in that framework and has actively sought industry support for it. My understanding is that that framework seems to be working pretty well. I guess the big missing variable from the industry perspective - and the FRDC has acknowledged this and it's certainly working hard to try and address this, as are we all - is the E bit in the new phrase RD and E.

It's not something I think traditionally the fishing industry has done particularly well; that's communicate back the results of research in a way that industry can understand. I mean, you can't just send a synopsis of a university report out to these guys. There's got to be some work done on iterating it into something that is meaningful to them. I think there's a gap there that needs to be filled and it's something that I know the FRDC takes very seriously and so do we.

In our internal structures at WAFIC, we have two R and D managers. Neil, my colleague, he is one of them. Their job is to go out to industry and talk to fishermen on the wharves, get ideas from them, help them work out how to scope that to be a research project that can then be eligible for funding. The other side of it is that when we get the results of that research, their job is to go back and communicate those results and what it means to them in their language. So there's some language issues and communications issues there in terms of translating academic work into laymen speak. That E bit, which I know is integral to the PISC framework, is something that we were working very hard on and certainly has a lot of industry support, but I think we've got a fair way to go.

MR WEICKHARDT: Thank you very much indeed. Thanks for your submissions and thanks for coming along today.

MR WEICKHARDT: Our next participant is Jannette Liddelow. Welcome. If you can give your name and the capacity in which you're appearing today, please.

MS LIDDELOW: Jannette Liddelow, and I'm just here on my own, feeling very lonely. Thanks for the opportunity to speak about the important area of rural research. Can I just say that if my contribution doesn't seem well constructed or well thought out, it's probably through haste and harvest. But I just didn't want to lose this opportunity of speaking about something that I feel is right at the heart of the research question.

Although I am not representing any organisation, I feel I speak for probably the majority of farmers and consumers when I say that we have a deeply flawed system when a minister governs in the interests of a multinational company rather than for the public good. Obviously I'm referring to Minister Redman and the Western Australian Agriculture Department and its dealings with Monsanto. I don't know how familiar you are with what has happened in the west, but the latest deal has been the selling of a 20 per cent share of InterGrain to Monsanto; InterGrain being the research of the ag department.

MR WEICKHARDT: Can I just say, I'm not specifically familiar with that, but we are confined to the terms of reference of our inquiry, so you need to make this relevant to our inquiry.

MS LIDDELOW: It's definitely relevant to the terms of reference. I mean, the grower levies that have been paid for how many years to the body and together with state and government funding over the years have facilitated the breeding of many crop varieties, many grains, improved grains, and the build-up of intellectual property. Did Mr Redman have the right to sell this, and what is the real price that Western Australian farmers have been asked to pay.

Since the marriage of Monsanto and the Western Australian government it has been full speed down the biotech knowledge path and research stations have been touted at Merredin and Katanning. The ag department made reference to that a moment ago. There's full-on trials right through the state on a new Roundup Ready canola at which they're looking. If this is the development part of R and D it certainly has advanced recklessly; and power and control has been bestowed on Monsanto, who has been writing the rules. The shameful situation - - -

MR WEICKHARDT: This is all your perception, that this has been done recklessly. I'm not sure that there's any evidence that it's been done recklessly. Is there?

MS LIDDELOW: The time frame, well - - -

MR WEICKHARDT: Are you aware of all the debate that might have gone on within the Western Australian government over the issue?

MS LIDDELOW: Yes, we have been in parliament. We have been very involved in it, and very involved from a farmer's point of view. I'll refer to some of the issues you're talking about, environmental, and you're talking about social impacts, with your rural research. I'll talk about a couple of those impacts and what is happening in the communities as a result of this extension of research and where it's all leading. I believe the system has broken down. You'd have a better idea of where that has, but I think the failure of that needs to be documented and addressed in your deliberations and findings.

I'd like to address the following key points; only some are related to the Monsanto takeover, others are related to your various recommendations and aspects of research under review. I am involved in primary production, marketing and community natural resource management. But I've had no direct experience of the research sector and how it works, therefore my concerns probably are going to be a little more general in addressing the overarching philosophical framework and perhaps some of the values underpinning the policies that you're examining.

Firstly I was going to mention the economic theory with R and D. To improve industry in order to produce more and better food while maintaining and enhancing the environment, I believe a new economic model of production is required which really places an economic value in real dollar terms on the environment, whether it's biodiversity, soil health, bush, rivers or water quality, any of those elements. I think the ag department guy mentioned something about trying to bring the natural resource management and the farming sectors together, rather than looking separately, which is really an ecological economic model, and that it could be part of the modelling and the theory right at the beginning.

Some universities have ecological economists. I'd imagine it's probably a newish area of economics. I certainly don't see any evidence that this type of thinking is common amongst new graduates - whether they're agronomists out in the field, agricultural scientists, biotechnicians, you don't actually see it coming through in the way they speak, but I'm hoping that it will become part of the language of the research sector. The second point I wanted to make was that a strong end-user focus must drive the direction of research and determine the funding. The links between research, producer and consumer has to go both ways, we're producing food for a consumer.

The biotech industry and its talk of GM wheat is a good example perhaps of where this has gone wrong. There's no market for GM wheat in the world, and yet it's being advanced as almost the done thing. I feel that that's not recognising that it's not the market or end-user requiring that product. No account of the market or

consumers has been taken into consideration as bodies such as GRDC and Grains Council facilitate an alliance between Canadian, American and Australian grain councils, to try to synchronise and bring on this release to lessen the resistance. I can't imagine where this can come from, it does not seem an appropriate use of government funds to advance something in this way.

My third point is about private versus public investment. I believe that governments do need to retain a bigger percentage of investments in RDCs, Private funding bodies by their very nature require that commercial outcome and it may result in a questionable product benefiting a specific industry and not the broader public. A compromised government is not able to act for the broader public. Dr Shiv Chopra, who was the chief scientist for food and drug safety in Canada for 35 years - and he visited Perth last year - described the relationship between chemical and drug companies and the Canadian government as "corrupt to the core," and he said what was happening in Australia was a very similar process.

I did hear Dr Fiona Stanley discussing this on the radio recently, the problem of drug companies funding medical research and requiring commercial returns and how this really compromised the health system. I actually put this to the premier last year, suggesting it was a similar problem. I explained what she had said and that we had a similar problem with rural research and the chemical companies which were behind the push for GM canola introduced into our farming systems. He took exception and asked if I was calling him corrupt. I was not, but I was certainly calling the system corrupt and saying that the people in power have got an obligation to put safeguards into the system.

I did note in the draft that the government funding is not for agripolitics or industry representation - that's in box 2 on page 29, yet there seems to be abuse of this requirement by GRDC, they fund Agrifood Awareness and it totally is like an advertisement for GM technology; there's no balance to the story, to any of the coverage in the paper, every time it comes. I'm just wondering how are the obligations on bodies such as the GRDC enforced.

My next point I was going to mention was a lack of trust in public institutions. The university's agriculture departments/bodies, such as CSIRO, I think need protection from becoming mistrusted and irrelevant. They must retain their neutrality and their objectivity and not be answerable to funding bodies imposing conditions. Reliable data, reliable scientists, reliable administration of the research element of these institutions must be maintained. Perhaps it's even better if more of the research funding went directly to the universities. I think I read in your report that perhaps that shouldn't be the way to go, but I'm just wondering how we do protect the universities from this lack of trust creeping in or this bias.

I have been at workshops at the university where I've actually been chatting

with lecturers at lunchtime and they might have expressed some qualms and some concerns about GM and all of a sudden, they go, "What if my boss heard me?" and they seem to be genuinely concerned about - you know, there just seems to be a lack of openness and transparency. If you can't discuss things at a university, where can you discuss them and I'm wondering what would create that type of environment. Similar things happen at the ag department. A friend had pamphlets there about an alternative view to a GM technology at the ag department. He was asked to remove them. There was to be no material other than what they were presenting.

I find it quite disturbing that there's this level of bias in our institutions, research institutions. Scientists at some of the universities have got their own biotech companies; obviously then they would need to advance their cause and claim. I remember one of the speakers this morning talked about are we looking after our scientists, perhaps there is a need to look at whether they are being well treated and rewarded enough, whether they need to do some cloning on the side. It perhaps needs to be looked at. While these examples might be outside the terms of reference of this particular hearing, they are intrinsically related and a corruption of the fair and balanced structures that you are trying to create.

MR WEICKHARDT: Okay, thank you for your input.

MS LIDDELOW: I've got three key points I would like to just finish up on. One is the use of language; some terms - and actually I think Cliff talked about it before - such as "food security" are used and abused and become meaningful spin but still attract attention and dollars. Are we talking yield? Are we talking quality and community? The same term can be used to describe the opposite ends of the spectrum, a full chemical, industrialised, mechanised crop production system, contributing little to community or a small self-sufficient holistic enterprise fully engaged in community. So yes, it's a term that can be taken in totally different ways.

"Non-GM" is another term introduced and used constantly in WA now by the minister for agriculture. When we as farmers plan and then deliver to CBH bins and sign our CDF forms, our card delivery forms, the crop is GM or it's GM free. Consumers, when looking at labels, look and see "GM free". There's no such thing as non-GM, and yet that's the only word in discussion he will speak with us about. It is meaningful.

Another point I'd like to take about is the RRA in the draft. While applauding the idea of the RRAs with a broader focus and emphasis on sustainable production, community and environment, three of the things that I do feel quite passionate about, and hoping that natural farming systems and organics would be the winners, thinking further on it, I do have concerns that the RDCs will be perhaps too industry focused and create even a bigger divide between the two. If the government backs out too far from funding the RDCs, would it lose all control on how the research proceeds?

Profit and productivity will become the driving factors and all other criteria will be secondary.

Perhaps a better idea is for the research done by RDCs to increase production, while having that broader focus and maintaining the higher standards of environmental and community impacts. This is what we've been trying to do with natural resource management in the community, make it an integral part of the farming systems, not a Landcare project tacked on when there's a bit of spare cash. I again refer perhaps to the need to have an ecological economic model underpin the RDCs' rationale.

The last point, I've called it Single Trait: at the risk of going from the very general to the very specific, I'm concerned that the focus of much research is on productivity and yield by isolating and going with a single trait, whether it's grain or livestock. Robustness is lost. Now we have Australian scientists wandering the hills of Iraq and Iran searching for the ancient seeds that have a diverse range of genetic material. These crops may not have the high yields but they might perform in drought, rain, frost or flood. With the changing patterns of climate and rainfall, the focus of the research bodies needs careful evaluation and the bigger picture taken into consideration. I thank you for the opportunity to present these thoughts.

MR WEICKHARDT: All right. Thank you. I accept your point of view. I have to say a lot of what you have said is outside our terms of reference. Some of it relates to it. I also have to say that I respect your right to have your point of view but I think there are many who don't share your point of view and I don't regard them as corrupt, I don't regard them as being reckless.

MS LIDDELOW: The system.

MR WEICKHARDT: I believe there are some very good reasons why people are investigating GM products and indeed there are some spectacular examples of success that have had community benefit. We've got our cotton crop in Australia almost entirely GM which has avoided countless amounts of pesticide being applied and has huge environmental benefits. I think many would say there is no reckless application of GM product in Australia, there's very, very many safeguards and very careful consideration.

We had a gentleman here this morning who was saying that a third of his wheat crop is lost each year to frost. It's been put to me that the biggest opportunity to avoid that loss, which is a huge loss in productivity in Western Australia, the biggest opportunity is by a GM solution. Now, whether or not that happens, I don't know. But all I'm saying is there are other points of view. I respect your right to put your point of view. We're not going to have a huge debate about it here because, as I say, it's outside our terms of reference.

MS LIDDELOW: Is it?

MR WEICKHARDT: It is. We're not having a debate about GM crops here.

MS LIDDELOW: No, I don't mean a debate, but the research and protection of intellectual property that's been built up over the years - - -

MR WEICKHARDT: That's outside our terms of reference. People are free to do research on things. There are approval systems built in by the government. There is an office of gene regulation to protect people according to the government's view.

MS LIDDELOW: He said last year - he was here in Perth, Dr Joe - that he does not believe the community has had extensive enough discussion on GM food and GM seed for it to be going where it is going.

MR WEICKHARDT: Well, you're having a discussion about it and there's lots of discussion about it, so I suspect it will be an ongoing topic and I certainly understand the concerns. That said, there are many examples of GM product that's been consumed at the moment for some time. A large percentage of the world's soy is now GM, a large percentage, and I don't think there's any evidence that I've seen that anyone has yet come to harm as a result of that. But I accept your concerns and your right to express them. We note them and we will focus on our terms of reference about the RDC system however in terms of our report. Okay. Thank you very much indeed.

MS LIDDELOW: I wish the commissioners well and wish you inspiration and success in your final report.

MR WEICKHARDT: Thank you.

MS LIDDELOW: I think the good old days of a well-funded public research sector that is transparent, trustworthy and accountable is perhaps the safer option than privatisation as a parting thought, if that's within your terms of reference.

MR WEICKHARDT: I hear your comment. I'm not sure I share your judgment.

MS LIDDELOW: Okay. Thank you for having me.

MR WEICKHARDT: Thank you. We're going to adjourn now briefly.

MR WEICKHARDT: Our next participant is Doug Hall. Welcome. If you could introduce yourself in the capacity in which you're appearing, please.

MR HALL: I'm speaking today as an industry development specialist. Thanks very much for the opportunity, and thanks for coming to WA. Personally I find it disappointing that more industry associations haven't actually been here to bear witness like I have, because I'd have to say that the diversity of views today has been very interesting and a lot of it I would actually support. My personal background is biologist, microbiologist, trained as a scientist, been an academic, running an R and D business, and in the last 15 years being involved in industry development.

In that regard, in addition to my own business, I have worked for one commodity association which was levy supported, and I have worked for two what I call service industry associations, which were not levied but could access levy money through the RDCs. I actually received money from several RDCs during that time. But I must say my personal goal always has been to wean those activities and those industries off that money as soon as possible so that they become self-sufficient.

For me personally, I was trained in traditional science and research but transitioned over to applied and industry, it was quite a cathartic experience and I had a couple of epiphanies. It highlighted a number of important things to me. The way we train scientists I think is an issue, we don't train them particularly well to work with industry and to respect often what industry's knowledge base and experience is, to integrate it properly. A number of comments were made today about the importance of working very closely with industry and growers, and I fully support those comments.

Somebody else said today about turning the whole paradigm on its head. One of those epiphanies was when it was basically highlighted to me that my colleagues had essentially dug a grave for me before I'd even arrived, because of the manner in which they had been operating with industry, and that led to quite a reappraisal of what science actually meant, what innovation actually meant and what the processes and drivers were in order to be successful in what I would call true applied science, not pure applied science, and I think there's a lot of that going on. Real applied science is actually working with industry and getting real outcomes in businesses and industries.

I must say that I'm a great fan of not only the Productivity Commission's work but similar bodies around Australia, and obviously in WA the ERA. I've been very involved with the ERA and their process with water. I think the great thing that you do is bring rigour, scrutiny and opportunity to review - some other people said how important that was today, and just challenging the current paradigm and giving people an opportunity to have a conversation. Doesn't mean to say that we'd

necessarily change anything, but also we don't want to throw the baby out with the bath water. In that regard, in general I support what you've done. There's huge cultural barriers and challenges in changing the current structure and I think you're heading in the correct direction but doing it in a way that does move it without being destructive, it's quite constructive.

From my experience with industry development, the ultimate aim of R and D - if we want to talk about it in that way - should be vibrant, competitive, sustainable industries and businesses. Industry development should be one of the prime goals. In other words, the framework in which R and D and extension - personally I prefer the word "implementation", or "adoption", which indicates the end product of the extension has actually been achieved. So industry development should be the ultimate framework which these RDCs should have, they should really be industry development bodies, not R and D bodies; R and D is just one component of that process.

That industry development framework needs to be strategic, it needs to be holistic and integrated and it needs to be driven by a number of really important things, and some of them have been mentioned today: supply chain orientated, so understand exactly who all the players are, because what competes in the global market is not individual businesses, it's the whole supply chain, and so the whole supply chain needs to work together and optimise itself, it needs to be systems-approached, so systems analysis and systems solutions, and that makes sure that we identify what all the underpinning connections are, and that goes back to supply chain, really understanding what is your supply chain; so not just the growers, the wholesalers and the retailers, but all the entities, all service industries and business that today make that primary supply chain, successful and competitive.

It also needs continual improvement. This is a fundamental problem, because often what one sees with these RDCs is almost an ad hoc approach to allocating money, and so what we need is to strategically build a wall - in other words, build properly on the research that has been invested in, rather than pile a sequence of bricks which really doesn't stack up, it tends to fall down. Another thing - and it has been mentioned a number of times today - of course is the industry driven component, but it must also be a collaborative partnership with all stakeholders, including scientists, including R and D organisations.

In my experience, one of the problems we have got - and it's a traditional, cultural thing - is that for a long time researchers and R and D organisations have been the leaders, and it's the way in a sense it had to be. When industry steps up to the plate to take that leadership role I have often seen friction, because the researchers still want to be the leaders; they don't understand that ultimately it's in their best interests for industry to be the leaders. That doesn't mean to say it diminishes their role; you can still have a partnership where somebody is actually

taking the lead role. Some RDCs have achieved or are getting very close to achieving that, but others aren't.

The other point I'd make there about research is that there's two paradigms of research, there's what I call the traditional, very rigorous one, and agriculture, that's your typical paddock design with all its rigour and two or three variables tested max, and then there's what I'd call management research. Management research is a poorly understood paradigm. We need to look at the manufacturing sector to understand what that actually means - so manufacturing, whether it's computers, or whatever, the science of actually understanding - process control, optimising your processes. It's legitimate research. Traditional researchers often tend to dismiss it as not real science, or "We can't publish it," that's nonsense, there are many journals where you can actually publish that.

The most critical aspect of that type of research is it actually is about learning how to optimise your management techniques in the context in which you are going to manage. I guess I'll put it this way: traditional research - and this is to do with publishing - is that you put a flag in the ground, and you've done definitive work in that area, and then the idea is you extrapolate that into a whole series of other situations, but from a manager's point of view, that's only the beginning of the story, you then need to go through a process of optimising that knowledge to work for you, and that is legitimate research territory. Again, I know some RDCs actually fund it, but I don't think it's as widespread an understanding or an activity as it should be.

So really it's about the successful innovation chain, and the end of that chain of course is successful implementation. I prefer to think of it as a commercialisation process, where research is one end of the chain, and then what we need to see is proper development, product and service development, that goes through to the ultimate commercialisation. The first people today had a beautiful example of that process occurring, effectively on the farm, with private investment. But they saw it as a commercialisation process. Again, I know certain research institutions and many scientists understand this, but that may not be sufficient.

Successful innovation is clearly dependent on a transfer of new knowledge along that chain. Building capacity - as has been mentioned a number of times today - is critical to this. However, the emphasis often is building capacity in the R and D, the scientist sector. I would argue very strongly that we need to be cognisant that we need to build the capacity right along the chain. For example, one of the things I've experienced, in many industry sectors is research is done at, let's say, the tertiary level, there are field days held for farmers but the uptake is very poor, and people wonder why this is.

I have a lot of background in the VET sector, which is about actual competencies, units of competency, and I think one of the best things that the RDCs

could do is actually understand the national training framework, of which the university sector is part, and bring in the VET sector, because the VET sector is recognising growers have current competencies or making sure they have current competencies, in things like irrigation for example, so that when they have a workshop from a university or an ag department they are going to be much more capable of understanding what the research means and therefore much more likely to take it up, much more likely to ask the right questions in order to make sure they understand it to take it up properly.

Another thing that was mentioned today was PhDs versus scientists. The apprenticeship framework and the PhD framework is somewhat anachronistic in the era of lifelong learning. The comment was made today by several people that PhDs are cheaper to fund than technicians or real scientists, and to me this is a fundamental problem, because what we need are real scientists employed in real jobs, particularly by industry, so that industry can be better positioned to actually take that leadership role and have high-quality conversations with other scientists and research organisations. I'd like to see more professional PhDs - in other words, people employed in real jobs - who then undertake research; they can get a PhD, but they're getting paid in real jobs.

Regarding farm days versus real training, often the farm day is seen as training; it's awareness-raising. What we really need is to understand that real learning and training needs long and appropriate frameworks, and this is where the VET sector, in my view, is the key to progressing that; it's the implementation of technologies, and by that I mean both hard and soft. The hard is obviously what we saw this morning, the piece of farm machinery, and the soft is the business management tools - the quality management systems and so forth.

The key to successful adoption and implementation of knowledge that has come from R and D is that it has got to be seen by the adopter as bringing a real business advantage. Often the best way to facilitate that is to make sure that it's integrated into their business management systems, and quality management systems and QA are obviously one example of that. Who should pay for research was an issue that was raised today. I found that very interesting, because one of the downsides of a levy at grower level for example is that there seems to be a tendency that as long as the research is somewhere along that chain that emanates from that grower and that grower levy that is where you should go for the funding.

I would perhaps argue that researchers need to target the right segment in the chain. So if the primary benefit is going to go to retailers or the marketing end, that should be their first port of call. That's not to say that they shouldn't have the opportunity to go back to growers, and I fully supported what was said this morning about the idea of going back and getting six growers who fully support your case. If you can do that with a marketing end thing, fantastic, but your first port of call

should be to that business sector that's going to get the primary gain. The growers may well get the indirect gain, but they should not be the first port of call. I guess that's one of the downsides of levies; it does tend, in my view, to lead to a tendency not to go out and be a little more entrepreneurial about marketing and getting the investment.

One other thing that came up today quite a bit was market failure. It's true that government does have a responsibility to probably address market failure, but there's also a tendency often for government to actually create market failure. One of the things that has unfortunately happened around the country is where ag departments and ag farms really have stepped quite rapidly back from R and D in the rural sector and done it in a way that has not been in a coordinated way with potential private providers.

I must say that what is now happening in WA, with the ag department here and the current DG, is a much more sophisticated approach to transferring activities over to the private sector but doing it in what I call a dance, a proper dance. So it's much less likely to create market failure, it's much more likely to build the capacity in the private sector at a pace at which it can achieve that. That's a model that I think people should look at very favourably.

I'd say is often with the RDCs there's this national outcomes thing, and that wouldn't be unique to WA, I think some of the other distal parts of Australia probably suffer from it as well. But we do have some unique situations here in WA, the urban area for example, our non-wetting soils. We have got such extensive areas of it and it's so critical to managing water, fertiliser and a whole range of horticultural and grazing industries for example. It would be nice to see some of the RDCs being prepared to do some more local research that may have some national benefits, but that's secondary to actually supporting regional outcomes. I'm not saying there shouldn't be national focus in R and D, but I think there needs to be a little better balance between the local, the regional and the national, in terms of where the preparedness to fund activities actually is.

Just one last thing. The national organisation that you've proposed, I think that's a very positive step, in the regard that if it's job is to make sure that the member RDCs are actually looking at possibilities for cross-fertilisation and collaboration, on those cross-industry issues, which has been a huge problem in the past, if it achieves that, that would be a massive benefit, particularly for the service industry; so industries like irrigation, like the fertiliser industry and so forth, that aren't commodities, there's not an RDC for these other things. So it would certainly benefit that goal that I talked about before about making sure that all players that make a modern supply chain competitive actually are fully integrated into the R and D planning process, not just the commodity, not just the growers. Thank you.

MR WEICKHARDT: Thank you very much indeed. Now, I have to apologise, I'm afraid I have to leave. I have to get back to Melbourne. So thank you for appearing. I'll leave you in the capable hands of Dr Samson.

DR SAMSON: Thanks very much, Doug.

MR HALL: Did you have any questions or comments?

DR SAMSON: Yes, thanks. With the RRA concept, you would see that as a positive way of pulling some of this together?

MR HALL: I would, but I wouldn't want to see it - and I think some other people have made this point today - become another level of bureaucracy. I would see it as very positive if it added value and addressed what are identified as the deficiencies of the current RDC-only model. So if it's giving a forum for conversations between those other corporations to encourage thinking about across-industry activities, if it's from a governance point of view, ensuring that in their deliberations about funding, to check that they are asking those questions, I mean, I wouldn't want to see it forcing it because the downside of that is that you start to work against innovation creativity, an entrepreneurial shift, but I think as a facilitator for moving people towards a more systems approach, a more collaborative partnership approach. I think it would be very valuable.

DR SAMSON: Some people in looking at that suggestion of creating a new entity - and you heard a bit of it today - have said if you can't get 15 to work, why do you think 16 will, and the costs of establishment. So there is a bit of a counterproposal from some people not to create a new RRA but actually to fairly significantly modify RIRDC's terms of reference.

MR HALL: I'd give an example from WA, and this is about government, so you've got government departments which are analogous to the RDCs and then you've got something like Premier and Cabinet. Now, when Premier Gallop was in power and he instigated the reform process in water, he elevated that to Premier and Cabinet level to ensure that the silos were actually in a sense forced to work together and it actually achieved a very rapid and very collaborative - not only within government but certainly outside of government, because I was outside of government at the time. I think you do need something above existing entities to facilitate and sometimes to force them to work in a new way. I really do believe that. How long it needs to exist in order to achieve that, frankly a lot of these things need to be catalytic, facilitating, and there should be some point in time where their ongoing existence is evaluated, so they don't just exist for the sake of it. But certainly in the short term, if it facilitated them working together, which demonstrably they haven't done very well, it would be a major benefit to a whole range of industries who are not levy payers but need to be involved in the formulation of good R and D. In fact

that could be an element of the structure that would allow or ensure that those other industries are actually being considered by the individual RDCs.

DR SAMSON: Okay. Thank you very much, much appreciated.

MR HALL: Thank you very much.

DR SAMSON: If we could have our next participant, the Network of Concerned Farmers. If you could please for the record give your name and the capacity in which you appear, please.

MS NEWMAN: Julie Newman, national spokesperson for the Network of Concerned Farmers and also the reason I'm so involved in research is because I held the GRDC portfolio when I was vice-president of the WA Farmers Federation for a number of years and also for a number of years I was on the Grain Council of Australia seed subcommittee.

DR SAMSON: Okay. Thank you very much for that. If you'd like to start the ball rolling with any comments you would like to make and we'll perhaps then have a bit of a discussion.

MS NEWMAN: Yes. I have serious reservations about the research sector because I honestly don't think the government has looked at the big picture on the R and D. If you look at farmers, we are forced to pay a levy for R and D. Most businesses get I think a 300 per cent tax deduction for research and development. We are instead forced to pay this levy and we do not own the intellectual property we pay for. The government directs the research, so if you look at the GM issue, of which the Network of Concerned Farmers is involved in, the government has pushed their policy, which is to push path to market for GM under industry self-management, and GRDC pays the GM industry \$100,000 a year to push a pro-GM policy through farm lobby groups. Really, that shouldn't be acceptable. The government should not be interfering on farm organisation policies just to support their own policies.

The policy of the federal government was designed not on how best to protect the interests of the people, it actually was based on how best to capitalise on their investments with biotechnology. So prior to the legislation for the OGTR, the talk or the questions asked in Senate was asking that particular question: how best can we capitalise on the investments in biotechnology?

Actually just one small thing I would like to point out, the template that GRDC gives government - the farmer expenditure is actually listed as government expenditure, so in effect we are paying our own levies because there is a difference between the template given to government. It's actually listed as government contributions and that should be investigated because when the government is saying how much money they are spending on the research and development, they are including farmer contributions because that is the template that GRDC is giving them. I looked at that four or five years ago and asked questions of GRDC. I don't think it's changed. So in effect farmers are paying their own levies because it is listed as a levy, so when it is spoken about at the OECD, the Australian government

has been using the farmer contribution as saying it's government contributions which is why we are listed as one of the highest. You deduct that farmer contribution and the government is not spending as much as claimed with the OECD, so that needs to be looked at. Sorry, I didn't write any notes down.

DR SAMSON: That's okay.

MS NEWMAN (NCF): That one needs to be looked at. I don't think it's been corrected, even though I did bring it to GRDC's attention four to five years ago. We are paying this levy, and what do we get out of it? If you have a look at the gross wastage in GRDC, you are spending a lot of money flying scientists around to listen to each other talk. Well, why should farmers pay for that? You are paying \$800,000 - I haven't got the up-to-date figures - getting the legal patents in place. Why should farmers pay for that? There is gross wastage. You should be able to divide between what is farmer expenditure and what is government expenditure, so I propose that we actually split the levy. If you're going to force farmers to have a levy, have it 100 per cent owned by farmers, controlled by farmers, and the output is owned by farmers. The intellectual property and the patents developed by research must be owned by farmers because the research sector see the GRDC levy as a huge milking cow and they are squandering it. Worse still, which should be brought out, is the bigger picture of what is happening with the corporate involvement in research.

Before the World Trade Organisation introduced the TRIPS agreement, intellectual property was freely traded amongst countries and the aim for research was to get published. When the TRIPS agreement was brought out, then the ownership of intellectual property became more tightly held and there was corporate involvement. Monsanto bought up most of the plant breeding technologies, so if you look at biotechnology, Monsanto has the equipment, the intellectual property of how to do it, the patents on the enzymes, and they are now holding governments to ransom or government research institutes, making it too expensive to actually do the plant breeding without an alliance with Monsanto.

If you look at Monsanto's stated aim at a USA biotech conference, Arthur Andersen Consulting revealed that they had set up a long-term plan and a strategy for Monsanto to own a patent over 100 per cent of the seeds grown. That is how they're doing, by holding the research sector ransom and getting involvement with the research sector. But the government needs to look seriously at what are these confidential agreements, because when I was doing a GM course in CSIRO, when I asked all the way through it, "Who owns the patents?" at the end of every little step, and then at the end I asked, "How much is CSIRO paying Monsanto for the use of all this equipment and patents?" and they said, "No, we're not paying them anything. We have confidential contracts." Now, what is in those confidential contracts? It appears to me that to add a gene to every variety produced is the trade-off. In that case, it's anticompetitive and it needs to be investigated, because that is their stated

aim. By forming alliances with plant breeders, all they need to do is add a patent; one gene into a plant and they own that plant and farmers become contract growers for Monsanto because it's locked into contracts. We don't decide what happens with this crop. We only pay the bills and do the work. The contract states clearly an agronomist tells you what to put on it. You have no choice of seed because you're restricted to your seed purchase; you must buy it every year. So Monsanto's statement on the contract is that you grow it how they tell you, using the products they tell you. You deliver it to the storage and handler that they dictate to you and to the marketer that they dictate to you. Why you've got market support for GM is because industries are either in with Monsanto or out of the loop.

If you are allowing the research sector to have these commercial contracts, anticompetitive commercial contracts, all of our seed may be locked in to having this patent added. It's not as if the patent is going to give us much benefit. If you look at the main GM crop grown, its resistance to glyphosate. Now, you don't need to take the gene from a bacteria found in the factory sludge pond of Monsanto's factory to add it to the DNA to get resistance to glyphosate. It's happening in our weeds without us wanting them to. It took one year for enterprising drug barons to develop a glyphosate-tolerant drug crop when they started the aerial spraying of glyphosate. You don't need GM to get this so-called benefit but why the government is supporting is because of the alliances, because Monsanto is offering them money. It's nothing short of bribery, what happened here in Western Australia. Western Australia lifted the moratorium - - -

DR SAMSON: Julie, please, we have some terms of reference on our inquiry - - -

MS NEWMAN (NCF): Yes, I know, but it does fit in on why it's - - -

DR SAMSON: I'm struggling a little bit to see the connection.

MS NEWMAN (NCF): Okay. It's in the research sector. It's anticompetitive. I'm explaining why, because it's fatally flawed, the model that you have. So if you look at InterGrain, all our public research sector, is now owned 40 per cent by Monsanto. \$10.5 million is nothing short of bribery. But what do they get in return? Is it anticompetitive? Why are we funding and why have the farmers funded through the GRDC levy to develop all these varieties which is now partially owned or almost half owned by Monsanto? What do we get out of it? Yes, it's fine for the research sector to form alliances with the corporate sector, but if you look at the addendum to Monsanto's shareholders' report, they charge more than a hundred per cent of the benefit gained, so there's no gain for farmers. So they charge a hundred per cent of the benefit gained, plus 20 to 30 per cent of things like peace of mind, ease of use, more time with the family. So by the research sector encouraging corporate investment, the costs for farmers, the control of farmers, the anticompetitive nature, is unacceptable. It's anticompetitive.

DR SAMSON: How do you reconcile what you say - we've talked to lots of producers, we've spent some time looking at the cotton industry and my take is that, certainly with the people we talk to, both producers, researchers and industry bodies in the cotton industry seem very happy with the way the CRDC has progressed this sort of research.

MS NEWMAN (NCF): Yes, but if you look at who grows cotton, it's only an area about 20 times the area of our farm. It's not much. It's a very small area.

DR SAMSON: We're looking at the model. We are charged with looking at the R and D model and what we're interested in is to see is the model itself fundamentally flawed?

MS NEWMAN (NCF): Yes.

DR SAMSON: Are there examples where in fact the model is not the problem, it's the implementation of the model, or are there indeed cases where there's nothing wrong with the model or its implementation, it's simply that some people don't like the legitimate outcome of the operation of the model.

MS NEWMAN (NCF): Okay. We'll use the cotton CRC as an example. When GM was introduced, cotton was a vibrant industry. They were the wealthiest farmers in Australia. Now they're not. There was money to be made out of farmers then. So as far as I can see, GM is a huge parasite, but you've got to have a host that's not half dead for that parasite to live. So that is a bit of flowery language, but you have to look at the welfare of farmers. At the moment they're really struggling, particularly around our area, which is Newdegate - and over east is not faring that much better - but you have a struggling industry. With cotton, you had a vibrant industry which is now not vibrant and not many people are growing GM cotton. You've got a huge industry that's set up from that, and that's what's happened with the cotton industry. The farmers don't grow it if it doesn't make them money and you then have less farmers that are able to pay for this huge industry that's set themselves up to make money out of farmers. But with cotton, there was a difference. There's not an environmental benefit because you could spray Bt every single day on that crop and you would have less insecticide coming into the environment if you sprayed it every day because the cotton itself is producing the insecticide, so the costs saved was the production of that insecticide, the application of the insecticide, so you actually have a financial benefit. But there is no evidence of financial benefit, and there doesn't have to be for a GM crop to be introduced.

Under our end-point royalty system - and this needs to be addressed by your inquiry which is a little outside the loop but it's a flaw of introducing GM - you have an end-point royalty system, we signed the UPOV 91 International Treaty, allowing

an end-point royalty system. America and Canada, the GM-growing countries, did not. We are going to follow the same step as Brazil where you only have to register a positive test for GM and you pay Monsanto the fee. So what you have allowed under an end-point royalty system and allowing contamination, you have actually allowed a blank cheque to the biotech industry, because if we get contaminated, whether we like it or not, if we can't prove a non-GM status, we legally may have to pay the end-point royalty. Now, that's anticompetitive, isn't it?

DR SAMSON: Coming back to our terms of reference, what is there about the current R and D model then that you would seek to change that in your view would address these problems that you perceive?

MS NEWMAN (NCF): Okay, split the levy. If we're going to be forced to pay a levy, we own the intellectual property we pay for, and we have an option, we do not allow the research sector to form confidential contracts where a GM gene is added to every variety. If a variety is produced, it must be released as either GM or non-GM so we have the choice whether to be a contract grower for a corporate company such as Monsanto. We don't want to be forced by the research sector to be contract growers for Monsanto. That is their stated aim. It is their policy and the Australian government has stepped right in and given them all the research. Other governments don't have the luxury of having farmers pay for the research. But we are just expected to just hand over that research and allow somebody else to charge more for it. We should have access for that.

DR SAMSON: You've said a few times that the Australian government has done various things, I think you've said that they've been directing the research agenda. What evidence have you got for that?

MS NEWMAN (NCF): Yes, because the policy of the federal government, the biotechnology strategy states quite clearly to push a path to market for GM under industry self-management. That is exactly the same as GRDC because they are a beneficiary of the federal government funding and part of that condition is that they must comply with policy and their policy is exactly the same as the federal government: to push a path to market for GM under industry self-management, meaning Monsanto writes the rules. We tried to introduce risk management where we were not liable for any economic loss suffered from GM but because both the federal government and GRDC money was spent to counter that. It was not accepted.

Why is GRDC funding Paula Fitzgerald from Agrifood Awareness \$100,000 a year to push a pro-GM policy through farm lobby groups? That's not acceptable and it's very much against how any agripolitical body should work and yet GRDC, because they have this pool of money that they help fund conferences et cetera, are pushing their wagon to try and form alliances with corporate companies which is all

about making more money out of farmers. You can't turn a research sector that has been previously unprofitable, which has only cost money, into one that makes money without somebody paying. The people that are paying are farmers and what I'm saying is they can't afford it. You won't have an agricultural industry if you allow the cost to go unchecked. We're not price setters, we're price takers. We can't just pass that cost on.

But research, if we pay for it, why can't we have the right of every other business in Australia where if we pay for research we get a tax deduction and we own the intellectual property? Why are we forced to pay a levy and then allow the research sector to form alliances with corporate companies so they can charge us more? InterGrain, our Western Australia alliance body, they produce most of our seeds. If there is an anticompetitive agreement with InterGrain and Monsanto where the varieties are not released in a non-GM form, we've handed all our agricultural profits over to a single company and it's not acceptable.

I am not able to do a Freedom of Information on these agreements with public plant sector, but you are in that right to have a good look at these agreements to actually see if they are anticompetitive. I think you'll find they are.

DR SAMSON: I think you'll find that's well outside our terms of reference.

MS NEWMAN (NCF): Can't you ask the right questions? How else are we going to see whether they're anticompetitive.

DR SAMSON: This is not within the terms of reference of this inquiry.

MS NEWMAN (NCF): It's about the direction of the research sector and that direction is controlled by those agreements.

DR SAMSON: Well, we hear what you say. I think we've now run out of time. Thank you for your appearance and your contribution.

MS NEWMAN (NCF): Good. Thank you very much.

DR SAMSON: Ladies and gentlemen, that concludes today's scheduled proceedings. For the record, is there anyone else who wants to appear today before the commission? In that case I adjourn these proceedings. The commission will resume next Tuesday in Mildura, 30 November. Thank you.

AT 3.42 PM THE INQUIRY WAS ADJOURNED UNTIL
TUESDAY, 30 NOVEMBER 2010