



COMMONWEALTH OF AUSTRALIA

Official Committee Hansard

SENATE

ECONOMICS LEGISLATION COMMITTEE

Estimates

MONDAY, 30 MAY 2011

CANBERRA

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SENATE
ECONOMICS LEGISLATION COMMITTEE
Monday, 30 May 2011

Senators in attendance: Senators Boyce, Bushby, Cameron, Colbeck, Eggleston, Heffernan, Hurley, Joyce, Ludlam, Mason, Milne, Parry, Pratt, Ryan and Williams

INNOVATION, INDUSTRY, SCIENCE AND RESEARCH PORTFOLIO**In Attendance**

Senator Carr, Minister for Innovation, Industry, Science and Research

Senator Sherry, Minister Assisting on Deregulation and Public Sector Superannuation,
Minister for Small Business, Minister Assisting the Minister for Tourism

Executive

Mr Mark Paterson, Secretary

Ms Sue Weston, Deputy Secretary

Ms Patricia Kelly, Deputy Secretary

Corporate Division

Ms Vanessa Graham, Head of Division

Ms Sarah Hargans, Acting General Manager, Business Collaboration Branch

Mr Stephen Murtagh, General Manager, Corporate Strategy Branch

Mr Richard Byron, General Manager, Human Resources and Facilities Branch

Mr Brad Medland, Chief Financial Officer, Corporate Finance Branch

AusIndustry Division

Ms Chris Butler, Head of Division

Ms Merryn Kennedy, General Manager, Innovation Branch

Ms Wendy Launder, General Manager, Business Development Branch

Mr Paul Sexton, General Manager, Customer Services Branch

Mr David Wilson, General Manager, Research, Development and Venture Capital Branch

Ms Trish Cattell, Manager, Financial Analysis and Data Management

Ms Michelle Henderson, Manager, Green Car Innovation Fund

Ms Mimi Mastrolembo, Manager, Finance, Compliance and Administration

Australian Astronomical Observatory

Professor Matthew Colless, Director

e-Business Division

Mr Craig Penniford, Chief Information Officer/Head of Division

Mr Neil Kinsella, General Manager, ICT Systems Branch

Mr Mike Sibly, General Manager, Online e-Business Services Branch

Mr Steve Stirling, General Manager, ICT Operations Branch

Ms Trish Porter, General Manager, VANguard and Infrastructure Branch

Enterprise Connect Division

Mr Paul Trotman, Acting Head of Division

Ms Jane Urquhart, General Manager, Policy and Program Branch

Ms Karen Redshaw, Acting General Manager, Implementation and Performance Branch

Ms Lyndall Milward-Bason, Acting General Manager, Trade and International Branch

Industry and Small Business Policy Division

Mr Michael Schwager, Head of Division

Mr Terry Lowndes, Special Advisor

Ms Ann Bray, General Manager, Food, Chemicals and Deregulation Projects Branch

Mr Richard Snabel, General Manager, Industry Policy and Economic Analysis Branch

Mr Andrew Joyce, General Manager, Small Business and Deregulation

Mr Raphael Cicchini, General Manager, Business Conditions Branch

Innovation Division

Mr Ken Pettifer, Head of Division

Ms Tricia Berman, General Manager, Innovation Policy Branch

Mr Peter Chesworth, General Manager, Pharmaceuticals, Health Industries and Enabling Technologies Branch

Mr Tony Weber, General Manager, Innovation Analysis Branch

Mr Doron Ben-Meir, Chief Executive Officer, Commercialisation Australia

Manufacturing Division

Mr Mike Lawson, Head of Division

Mr Mark Durrant, General Manager, Automotive Branch

Dr Michael Green, General Manager, Innovation and Space Branch

Mr Ivan Donaldson, General Manager, Australian Building Codes Board

Mr Murray Fearn, Acting General Manager, Working Groups Unit

Mr Mark Mussared, Manager, Automotive Analysis Section

National Measurement Institute

Dr Laurie Besley, Chief Executive Officer/Head of Division

Questacon

Professor Graham Durant

Ms Lorraine Neish, General Manager, Operations

Mr Brenton Honeyman, Manager, Science Communication and Strategic Partnership

Research Division

Ms Anne Baly, Head of Division

Dr Anne Byrne, General Manager, Review Taskforce

Dr Caroline Perkins, General Manager, Compacts and Coordination Branch

Dr Nick Yazidjoglou, Acting General Manager, Compacts and Coordination Branch

Mr Anthony Murfett, Acting General Manager, Research Funding and Policy Branch

Science and Infrastructure Division

Ms Anne-Marie Lansdown, Head of Division

Mr David Luchetti, General Manager, Astronomy and Research Agencies Branch

Ms Julia Evans, General Manager, Office of the Chief Scientist and Science Policy
Ms Mary Finlay, General Manager, International Science Branch
Ms Clare McLaughlin, Acting General Manager, Research Infrastructure Branch
Mr Antonio Mozqueira, Director, Office of the Chief Scientist and Science Policy

Chief Scientist

Professor Ian Chubb, Chief Scientist

Australian Nuclear Science and Technology Organisation

Dr Adrian Paterson, Chief Executive Officer

Mr Peter Arambatzis, Chief Financial Officer

Mr Lubi Dimitrovski, Waste Operations Manager

Mr Hefin Griffiths, Manager, Safety, Environmental and Radiological Assurance

Australian Research Council

Professor Margaret Sheil, Chief Executive Officer

Ms Leanne Harvey, Executive General Manager

Professor Andrew Wells, Executive Director

Ms Julija Deleva, Chief Finance Officer

Commonwealth Scientific and Industrial Research Organisation

Dr Megan Clark, Chief Executive

Mr Mike Whelan, Deputy Chief Executive, Operations

Mr Craig Roy, Deputy Chief Executive Science, Strategy and People

IP Australia

Mr Philip Noonan, Director General

Ms Fatima Beattie, Deputy Director General

Mr Doug Pereira, General Manager, Corporate Services Group

Committee met at 09:01

CHAIR (Senator Hurley): I declare open this public hearing of the Senate Economics Legislation Committee. The Senate has referred to the committee the particulars of proposed expenditure for 2011-12 and related documents for the Innovation, Industry, Science and Research portfolio. The committee must report to the Senate by 31 June 2011, and it has set 22 July 2011 as the date by which answers to questions on notice are to be returned.

Under standing order 26, the committee must take all evidence in public session. This includes answers to questions on notice. Officers and senators are familiar with the rules of the Senate governing estimates hearings. If you need assistance, the secretariat has a copy of the rules. I particularly draw the attention of witnesses to an order of the Senate of 13 May 2009, specifying the process by which a claim of public interest immunity should be raised, and which I now incorporate in *Hansard*.

The extract read as follows—

Public interest immunity claims

That the Senate—

(a) notes that ministers and officers have continued to refuse to provide information to Senate committees without properly raising claims of public interest immunity as required by past resolutions of the Senate;

(b) reaffirms the principles of past resolutions of the Senate by this order, to provide ministers and officers with guidance as to the proper process for raising public interest immunity claims and to consolidate those past resolutions of the Senate;

(c) orders that the following operate as an order of continuing effect:

(1) If:

(a) a Senate committee, or a senator in the course of proceedings of a committee, requests information or a document from a Commonwealth department or agency; and

(b) an officer of the department or agency to whom the request is directed believes that it may not be in the public interest to disclose the information or document to the committee, the officer shall state to the committee the ground on which the officer believes that it may not be in the public interest to disclose the information or document to the committee, and specify the harm to the public interest that could result from the disclosure of the information or document.

(2) If, after receiving the officer's statement under paragraph (1), the committee or the senator requests the officer to refer the question of the disclosure of the information or document to a responsible minister, the officer shall refer that question to the minister.

(3) If a minister, on a reference by an officer under paragraph (2), concludes that it would not be in the public interest to disclose the information or document to the committee, the minister shall provide to the committee a statement of the ground for that conclusion, specifying the harm to the public interest that could result from the disclosure of the information or document.

(4) A minister, in a statement under paragraph (3), shall indicate whether the harm to the public interest that could result from the disclosure of the information or document to the committee could result only from the publication of the information or document by the committee, or could result, equally or in part, from the disclosure of the information or document to the committee as in camera evidence.

(5) If, after considering a statement by a minister provided under paragraph (3), the committee concludes that the statement does not sufficiently justify the withholding of the information or document from the committee, the committee shall report the matter to the Senate.

(6) A decision by a committee not to report a matter to the Senate under paragraph (5) does not prevent a senator from raising the matter in the Senate in accordance with other procedures of the Senate.

(7) A statement that information or a document is not published, or is confidential, or consists of advice to, or internal deliberations of, government, in the absence of specification of the harm to the public interest that could result from the disclosure of the information or document, is not a statement that meets the requirements of paragraph (1) or (4).

(8) If a minister concludes that a statement under paragraph (3) should more appropriately be made by the head of an agency, by reason of the independence of that agency from ministerial direction or control, the minister shall inform the committee of that conclusion and the reason for that conclusion, and shall refer the matter to the head of the agency, who shall then be required to provide a statement in accordance with paragraph (3).

(Extract, Senate Standing Orders, pp 124-125)

Australian Nuclear Science and Technology Organisation**[9:03]**

CHAIR: The committee will begin consideration of the Innovation, Industry, Science and Research portfolio with questions for the Australian Nuclear Science and Technology Organisation and will then follow the order as set out in the circulated program. I welcome the Minister for Innovation, Industry, Science and Research, Senator the Hon. Kim Carr, and officers of ANSTO. Minister, would you like to make an opening statement?

Senator Carr: Yes, if I could. Many senators would be aware that this is Mark Paterson's final appearance before this committee. As the secretary of the department, Mr Paterson has, of course, served before this committee for many, many years. Mr Paterson will leave the department at the end of May to take up a senior post with the New South Wales government, so I believe it to be fitting that we acknowledge from this forum his record of service to the Commonwealth. Mr Paterson was appointed Secretary of the former Department of Industry, Tourism and Resources in 2002. With the election of the Labor government he became the steward of a new portfolio built on a new policy framework which brought together innovation, industry, science and research. Combining university research and industry innovation was a first for the national government and required a new approach in terms of collaboration between different policy areas within the one new department.

Mr Paterson's professionalism, I believe, has been acknowledged by senators in this committee for some time. I personally have witnessed that from both sides of the table—that is, in government and in opposition. On a personal level, one of the lessons that I have learnt is that the key to success in this business is managing good relationships. This particularly applies in politics, but it is critical for effective government. It is these relationships that give you the understanding that allows you to sustain a dialogue, build support and achieve the government's objectives.

If I might put it in a broader context, Patrick Wheeler recently argued that in politics:

Days are structured by meetings, not by seminars to discuss political philosophy. They make decisions, day in, day out, as part of a series of pragmatic, sequential issues that fall—

As I increasingly discover, as an aside—

or are selectively isolated for their decision. They jump from topic to topic. Life is a mosaic of pieces that provides a pattern only in retrospect. Ask how they approach the job and the response will be that they did what the job required. That is what ministers or prime ministers do; there is choice, but within a context.

Faced with the day-to-day pressures of government, ministers have to constantly reassert the importance of broader policy objectives that underpin actions. Therefore, it is the relationship with the Public Service that is critical. I have found that it is very much a two way street. You have to understand the department's capabilities and you have to ensure that the department understands the minister's intentions. In that, the secretary plays an absolutely pivotal role. I believe that this applies in principle not just to the department itself but also to the relationship with our agencies, which are here today.

I would like to argue that this government and this portfolio have a very proud record of achievement. The success that we have enjoyed rests very much on the ability of the secretary, the senior officials and the agency heads to run their functions effectively and

efficiently but do so without micromanagement. It is in that context that I think Mr Paterson has excelled. I take the view that respect cannot be demanded but only earned. That is the key principle of leadership, and that is why I firmly take the view that this portfolio has had very good leadership. Mr Paterson combines the finest attributes, in my direct experience, of the Australian Public Service. They are very heavy expectations. We ask our officials to be apolitical and professional in their service. We ask them to maintain the highest ethical standards. We ask them to provide frank, honest, comprehensive, accurate and timely advice that responds to the directions of the elected government of the day. We ask them to recognise and harness the diversity of the communities in which we work. We ask for accountability for actions to the Australian people through the office of the minister. In all of these things it is my experience that Mr Paterson has excelled. He has shown incredible courage and grace in dealing with our interlocutors. I emphasise the word 'courage', because in this portfolio people do come at you in an awfully hard way. It is important to show courage but also grace. I think that he has shown and demanded the same excellence of officers within the portfolio.

I would like to particularly single out the efforts he has made to encourage women. In the highest levels of this portfolio we have seen very significant advancements for the professional opportunities for women. If you think about what we have been through in terms of the global financial crisis, this portfolio has produced very, very strong results, and it is a testament to his leadership that there has been no difficulties which would cause political difficulty for the government in the administration of programs. Think about that. There is Powering Ideas, which was the first for this country for a long-term innovation agenda, there were landmark reviews on CCF and auto, the establishment of entirely new agencies from scratch – Commercialisation Australia and Enterprise Connect—the development of the innovation councils, such as Clean Business Australia, and the very significant reforms and the massive funding boost to science and research programs.

I congratulate Mr Paterson on his long record of achievement with the Australian Public Service. He has served governments of many persuasions, and I wish him every success in his new position in New South Wales.

CHAIR: Thank you, Minister. I am sure that the committee concurs with those sentiments, and we thank Mr Paterson for his work here with the committee. I certainly agree that he has dealt with questions with great frankness and courage.

Senator EGGLESTON: Can I add, on behalf of the opposition, that we also thank Mr Paterson for his service to this portfolio, and wish him all the best for his future with the government of New South Wales. I think that you have done a great job and I'm sure you will do a great job in your next appointment.

Senator CAMERON: Well done, Mark. Just behave yourself when you go to New South Wales!

CHAIR: I think that we had better start with the ANSTO session, and I think Senator Eggleston has questions.

Senator Carr: Firstly, I would like to table the report that I received on Friday—the review of the current health and safety arrangements at ANSTO Health. Also included in that is the accompanying letter from the secretary. So there are two documents that are both being tabled. I have provided copies of these to the opposition this morning.

CHAIR: Yes, the committee agrees that the documents be tabled.

Senator EGGLESTON: I have a couple of questions that I would like to ask ANSTO. Is ANSTO aware of a company called Sirtology, which provides treatment for people with late stage secondary cancer using radio isotopes injected into the bloodstream to reduce the size of cancers so that, after a period of some months, patients are able to have further surgery and the prospect of a longer life expectancy or cure?

Dr Paterson: We do know of Sirtology. We are in the process of engaging with Sirtology to see whether we can develop a commercial relationship with them. I believe that there is a meeting this afternoon with Sirtology. In this particular domain of our activity, ANSTO is in the commercial sphere and therefore we have to operate within the rules that apply to commercial activities in the CAC ACT. We have indeed, over the last period of months, engaged with Sirtology and established parameters, at their request, for a commercial relationship. I believe that the meeting this afternoon is to have a further exchange of views and for information relevant to that negotiation. The substance of the negotiations is commercial-in-confidence.

Senator EGGLESTON: Yes, I understand that that is the case. But there are a few issues around it. Are you aware that Sirtology needs to obtain approval from the TGA to have a quality assured manufacturer able to handle radio isotopes, and that ANSTO is the only organisation in Australia that can meet those requirements?

Dr Paterson: At present that is certainly one of the elements that is under discussion and review. I could not actually comment on whether we are indeed the only organisation that could meet that requirement, as I am not fully aware of the detailed operations of other actors in the marketplace. But I would imagine that ANSTO would be fully capable, in a proper agreement, of executing that type of work.

Senator EGGLESTON: I understand from Professor Gray that in fact ANSTO is the only organisation in this country capable of doing this, and that the processes used by ANSTO were developed by Professor Gray and provided to ANSTO back in 1986.

Dr Paterson: If we were to explore the full relationship with Professor Gray over that period of time, we would find that he has been in association with various different agencies over that period. So we do not necessarily see that Professor Gray, as a private individual, is the supplier of those technologies, and in some cases the co-developer of the technologies. But there have been commercial arrangements in place with other actors in the marketplace. But we do fully acknowledge Professor Gray as the originator of the core technologies, which you have described.

Senator EGGLESTON: Well, originator or not, he says that in fact the methodology used to produce these isotopes is very simple and relies on the same processes he instructed ANSTO to use in 1986, and which ANSTO has used ever since. There is obviously some room for difference there, perhaps. But isn't it the case that the isotope in question has a very short half life? It has a life of 64 hours and therefore a half life of 32 hours, so finding a domestic producer of this isotope is very important if it is going to be used in Australia. With a half life of 32 hours it obviously could not be manufactured in Europe or North America and brought to Australia to be used for patient care, because obviously there would be very little of its half life left by time it got here. Would you agree with that?

Dr Paterson: Thank you for the question, Senator. Firstly, with that sort of half life it is indeed possible to import from suitable suppliers. We import isotopes with shorter half lives at present. So it would be possible to achieve that with a logistical supply chain that was robust. However, I do acknowledge that that would be difficult to achieve with a small start-up firm. It is important to note that at present yttrium-90 packaged for the marketplace is indeed supplied in Australia on a weekly basis through another manufacturer.

Senator EGGLESTON: Is that the case? So it is domestically provided here. I would have thought that that manufacturer does not manufacture a great deal of this, and that the basic point about it being difficult to import would still be the case, would it not? Because if this was used for medical treatment around Australia, the isotope would have further degraded by the time it was brought here.

Dr Paterson: I believe that it would be inappropriate for me to speculate on whether there is full supply in the Australian market at the moment, because that is information that we are not privy to. We are a third-party manufacturer for another company. We are in negotiations with Sirtology to potentially be a third-party manufacturer for them. The discussions are in progress. They are being conducted in good faith. It is a complex negotiation because the particular approach that we have to take to the market is to be balanced and fair to all the actors in the market, and to ensure that there is an appropriate regime for anybody we supply that allows them to act freely and fairly in the marketplace. Therefore, you would appreciate, Senator, that this is indeed a complex negotiation and is not going to be completed, necessarily, in a very short period of time. However, it is our specific objective, and I have written to Professor Gray in this regard, to achieve an outcome that is mutually beneficial and supportive. Indeed, that is the spirit in which the meeting will take place this afternoon.

Senator EGGLESTON: Professor Gray wrote to Paul Fletcher, his local MP in Sydney, and said in fact, 'We are being deliberately stonewalled by ANSTO Health. As a result, we and Australia are losing time, money and opportunity. More importantly, cancer patients are being deprived of another treatment option for their incurable disease. Many of these patients are Australians.' Do you disagree that you are deliberately stonewalling ANSTO, or do you wish to make a comment about that? I mean, Professor Gray is a very eminent professor of surgery. I do not think that he would make that comment lightly.

Dr Paterson: We are aware of the assertions that he has made. He wrote me a somewhat different letter, but it covered some of the same ground. I agreed to review the situation in ANSTO, which I have done. As I indicated, I replied to him at the time that I agreed to reply to him. He has received that letter, and on receipt of my letter he requested a meeting. That meeting will take place this afternoon. So I would imagine that the letter that I wrote to him, which he has, was taken in a very positive light. My letter did not in any way acknowledge that we were stonewalling him. It pointed out to him the complexity of the negotiations that we were undergoing, our good faith position and our need to advance it by proper supply of information by both parties so that we can construct an appropriate agreement. So as much as I respect Professor Grays right to communicate widely on this matter, he has not communicated in that manner with me.

Senator EGGLESTON: He certainly has with his local MP last week. He is really not satisfied with the reasons you put forward for the delay in proceeding with arrangements for the production of these isotopes, which are required for the treatment of late stage cancer

patients with secondaries throughout the body, and who otherwise would be regarded as untreatable and have—

Dr Paterson: There is another actor in the marketplace who is supplying into the Australian market. We believe that it is the intention of Sirtology to become a second actor in the marketplace. It is our conviction that we have acted properly in all respects of our discussions with Professor Gray. I think evidence of our bona fides is that we indeed did write to him. He has not yet replied to my letter, but one of the outcomes of my correspondence with him is a continuation of the discussions which were already in train.

I might indicate that it is important to recognise that the product modality will require investment and that, depending on the type of agreement that is reached, it would be expected that the manufacturing party for whom we manufacture would incur those costs. Indeed it is also the case that we were awaiting requested information from Professor Gray, and I reinforced this in my letter to him. It is my sincere hope that we will be able to progress these discussions today. We would want to do that in a spirit of seeking a solution which will be beneficial to Australia and which would allow the achievement of the most appropriate applications of this technology to be available to Australians.

Senator EGGLESTON: Professor Gray says in the conclusion of his letter that he seeks assistance to have ANSTO fulfil its mandate and assist rather than obstruct what he is trying to achieve. Do you intend to do that?

Dr Paterson: I believe that it has always been our intention to do that, and I have found no evidence in my review of our negotiations with Professor Gray that we have at any time or in any way sought to obstruct the outcome that he seeks to achieve.

Senator EGGLESTON: Can I ask the minister if he has written to ANSTO regarding this matter?

Senator Carr: What I have done, Senator, is written to Paul Fletcher, the member for Bradfield, who raised all of these issues with me.

Senator HEFFERNAN: Who wrote the letter?

Senator Carr: I don't know. Mr Fletcher—

Senator Heffernan interjecting—

Senator Carr: I think that you will find that the normal departmental correspondence processes were followed. The point that strikes me in this, Senator—and I have followed your remarks carefully—is that Mr Gray, if I recall rightly, is the same Mr Gray that had a dispute with IP in Western Australia. Is that the same Mr Gray?

Senator EGGLESTON: Well, it is in fact. But that was a long time ago.

Senator Carr: Yes, I know. But I am just saying that he is no stranger disputing these matters—or prosecuting matters of interest to him. These are discussions that invariably involve commercial transactions, and I think that ANSTO ought to be able to get on with doing the job of ensuring that the Commonwealth's interests are equally protected in these conversations. I have not been presented with any evidence that would question, in my mind, that ANSTO is operating in anything but good faith and recognises that there are complex commercial matters involved in this process.

Senator EGGLESTON: Nevertheless, this is a leading-edge technology which provides treatment for patients who would otherwise have no prospect of any treatment whatsoever and who would die. It seems to me quite remiss that there have been obstructions placed in making this treatment available for people in Australia.

Senator Carr: That is a point of dispute, Senator. I have no evidence to suggest that that assertion is in fact correct. What I do know—

Senator EGGLESTON: Nevertheless, that is what the professor claims.

Senator Carr: But that does not make it right. It is an assertion.

Senator EGGLESTON: I have known the professor for a long time, and I respect his integrity.

Senator Carr: It is not a question about his integrity. It is a statement of the commercial dispute. It may well be that people of goodwill have different views on these matters. What I note in the correspondence here is that the question relating to costs in regard to the process, the plant and equipment, or the time of individuals relating to the development of Sirtology's product must be carefully costed and agreed prior to initiating the work. That surely is not an unreasonable proposition for a Commonwealth agency to deal with in regard to a supplier?

Senator EGGLESTON: No, I agree with that, Minister. But what the professor is asserting is that he is being obstructed, and I'll just seek your assurance that you will satisfy yourself that there is no unreasonable delay or unreasonable impediment being placed in the path of the making of this treatment available to Australians.

Senator Carr: Senator, I will give you this assurance: I have already looked at it. I see no evidence that would lead me to have any concern about this matter at this point. ANSTO has indicated to you today that there are further discussions this very day. I do not think that it would be appropriate to pre-empt those.

Senator EGGLESTON: What it does concern is patients with late stage cancer, and their families, all around Australia who might otherwise be assisted by this treatment. I think that that puts a certain imperative on resolving this matter as quickly as possible.

Dr Paterson: Perhaps I could comment again on that. As I indicated, and as the committee may be aware, there is a competitor to Sirtology in the marketplace that is currently active. It would not be accurate to say that sufferers from cancer do not have access to a treatment in the late stages of liver cancer that would be appropriate for their condition, subject to the normal rules and engagements. We do believe that Sirtology wants to bring a product to the market which would be a valuable product for the market. We have to do this properly. As you indicated yourself, Senator, this is a matter also for the TGA and for their approval. It is not simple or easy to introduce a new medical product into the marketplace. Therefore, the skills of ANSTO and the intentions of Professor Gray, joined together, could lead to a very positive outcome. But it will require both parties to work to an agreement in which all of the mutual and several obligations are well understood, and where we then work further, should we achieve such an agreement, to achieve the outcomes that are contained therein. We certainly are not obstructing this process; we want to take it forward, but I think that is a two-way street and I think that we need to work positively and effectively together. I take note of the comments that you made—that clearly Professor Gray feels that in his mind

he has been obstructed. As we develop those negotiations we will seek to remove any obstacles that he sees. But there is no intention by ANSTO to try to obstruct him in any way.

Senator EGGLESTON: I am very pleased to hear that, as he says that he feels he is being stonewalled. But I will accept your comments in good faith. I will certainly keep an eye on this matter and assure you that it will be raised again at the next lot of estimates. Thank you.

CHAIR: Thank you. Senator Ludlam.

Senator LUDLAM: Thanks for coming in. I would just like to add my comments as we farewell you, Mr Paterson, and wish you the best for your future endeavours on behalf of the Greens.

I note a recent statement issued by ANSTO which states that you have been closely monitoring the events unfolding in Japan, in conjunction with ARPANSA, and that you have been offering advice and support to the Australian government. Can you just described for the committee the nature of ANSTO's close monitoring activity?

Dr Paterson: Thank you very much, and good morning, Senator. Right from the initiating events following the earthquake and the tsunami, we put together a team inside ANSTO composed of people familiar with boiling water reactors and their application in the production of nuclear power. That team reviewed all of the information that became available publicly and by the specialist nuclear channels that are available to us so that we could provide regularly updated information for the government on how we saw this particular set of events unfolding. The range of inputs that we have made have been at the level of the understanding of how boiling water reactors work and what the risk and safety case associated with those reactors was. We have given input on the releases of radiation and the impact of the releases of radiation; the uptake of radioisotopes in food; the understanding of the different press reports that came out at different times; and the implications for how the likely outcome over the long term would come forward. We continue to monitor the current events, including the endeavours to bring the reactors into a state of cold shut down.

We also have had a strong record and tradition with our partners, the IAEA and our colleagues around the Asia-Pacific rim, in monitoring radiation levels in seawater. We will be continuing to strengthen that work following the releases of radioisotopes into the ocean. We are currently very active tracking the work of the IAEA delegation, which is in Japan at present, which will lead to a conference that is due to take place in the third week of June in Vienna. That will be the first senior level conference to review the factors that have led to the current crisis around the Daiichi plant. So we have been going beyond that as well. We have very strong research relationships with a number of nuclear science and technology organisations in Japan, including J-PARC, Spring-8 and others.

We provided the minister with a review of the damage to the J-PARC facility and the implications for nuclear science and technology research that arose from that. You may be aware that we made a specific offer to our Japanese research colleagues that while their equipment is not functioning – their neutron beam instruments in particular – they could come and utilise some of the time available on our facilities. They have taken up that offer, and the first researchers will be coming to ANSTO within the next quarter. In addition to that we have continued to offer any help and assistance that we can. Very early on when the New South Wales rescue teams were going into Japan, we provided them with radiation monitoring

equipment, for example. So right from the very early moments of the tsunami and earthquake, and the impact on those nuclear facilities, we have been deeply involved. We will continue to be involved in order to provide high quality information to government in support both of an understanding of the implications of this disaster and also to support our colleagues in Japan who are working to alleviate and mitigate the effects of that, and more broadly the nuclear science and technology community in Japan.

Senator LUDLAM: Will anybody from ANSTO be attending that meeting in Vienna?

Dr Paterson: It is our intention to be at the meeting in Vienna. At present it is likely to be myself and our counsellor in Vienna. That will probably be the intention.

Senator LUDLAM: I might ask you for a report on that next time.

Dr Paterson: We would certainly welcome the opportunity to share that information with you.

Senator Heffernan interjecting—

Senator LUDLAM: We can try and stay on topic, if that is possible. What is your prognosis, Dr Paterson? Do you believe that the Japanese authorities actually have those reactors under control? Do you think that they will in fact have the plant in a state of cold shut down within a couple of months or do you think it is more serious than that?

Dr Paterson: I certainly think that the events at the Daiichi plant are very serious. There is no doubt in my mind that we do not yet have a full assessment of the full impact of the events, and therefore the projected timelines for cold shut down I think are solid but perhaps slightly optimistic. I think that it may take longer than they currently expect to achieve that full shutdown. However, I think that the trajectory is all moving in the right direction. There is no evidence at present that there is any re-criticality of the cores, which clearly have suffered significant melting. That would be something to track really carefully.

Senator LUDLAM: What happens if there is a re-criticality of the reactors, effectively—if one of them starts itself back up again? What do they do then?

Dr Paterson: I think it would be mitigated relatively easily by the introduction of boric acid. That is a neutron poison and it would rapidly shut down any re-criticality. I do not believe that that is a very strong possibility at this point, but it is important to indicate that we do not have enough ground truth at this point to fully understand the implications for plants 1 to 4. Secondly, we need to monitor the clean out. The clean out on site is challenging, because as a result of the hydrogen explosions there was a lot of radioactive contamination of the debris. That leads to different amounts of activity in different parts of the site, which makes access to the facility difficult in some cases. I am comfortable that the Japanese authorities are deploying sufficient resources to address these, but as more information becomes available there is a dynamic re-evaluation of the plants. I am fully confident that over the next period, as more information becomes available, the full extent of the future and forward looking risks will be better understood. For example, the plume to the North West and the release of caesium 137 is not deeply understood at this point. It is obviously one of the objectives of the IAEA mission to better characterise what the implications are for the community that lives in that area. Overall, however, the nuclear facility there has proven remarkably robust under a beyond-design-basis accident that is of a very serious nature.

Senator LUDLAM: Let's hope that you are right, because I think it is about to be hit by a storm. I want to turn to reactors here in Australia. In the 2011 budget, the government provided \$9.7 million to ensure that Australia could comply with international best practice for decommissioning our facilities here. I wonder if you can give us an update on the decommissioning first of the small Moata reactor, which I understand is still underway, and secondly for the HIFAR reactor. Can you just give us an update on the status of both of those?

Dr Paterson: The Moata reactor has completed its decommissioning. On 17 May we received a letter from ARPANSA—the regulator—indicating that they had satisfied themselves that the decommissioning activities were indeed complete. Therefore, we have successfully completed the first decommissioning of our reactor in Australia. That was a very positive process for us. It was under the scrutiny of the IAEA, and it also won the New South Wales engineering project award from last year and the small project award at the national level. So it was a very controlled, carefully thought through, planned and executed exercise which has successfully decommissioned that reactor.

Senator LUDLAM: Okay. Where is the contaminated material currently being stored?

Dr Paterson: The contaminated material is currently stored in our stores on the site. The ultimate destination in international best practice would be to a national repository.

Senator LUDLAM: So that would be removed if and when a national repository is established. What is the volume of the material and in what form is it?

Dr Paterson: I will take that on notice, Senator.

Senator LUDLAM: Thanks, if you could. Also how you treat and condition that material—that would be appreciated. Can you give us an update on the status of the decommissioning work on the HIFAR plant?

Dr Paterson: In formal terms, no decommissioning is taking place at HIFAR at present. The HIFAR license is a possess and control licence. Under a possess and control licence we maintain the facility safely while the decommissioning plans are developed. As those plans are developed and put into action, we will be requesting from ARPANSA a decommissioning licence.

Senator LUDLAM: Okay. So that has not been issued yet. When do you anticipate applying to that licence?

Dr Paterson: There are two scenarios in place at present. One would be an early application and the other one would be a later application. I will provide the details of those two alternatives on notice.

Senator LUDLAM: Would you contract those works out or would they be undertaken by existing ANSTO staff?

Dr Paterson: The works take place under the direction of ANSTO. Given the nature of the work, we do not have the full scope of workforce required for that decommissioning and we intend to subcontract aspects of the work in order to perform it optimally.

Senator LUDLAM: You have given us an undertaking to take on notice when the dates are for an early and late start. Can you just give us a rough idea what a late commencement would look like? Is that months or years – and I will not hold you to this?

Dr Paterson: For a late approach, the decommissioning activities would be initiated in 2017.

Senator LUDLAM: By 'initiated' you mean that you would apply for a licence or you would actually start from—

Dr Paterson: That would be the year that that work would begin.

Senator LUDLAM: Work would begin by sometime in 2017. And an early commencement?

Dr Paterson: At present this would be of the order of two years earlier.

Senator LUDLAM: So 2015 or thereabouts. Over what time frame? How long does it take to pull apart a plant the size of HIFAR?

Dr Paterson: The total decommissioning program has not been worked out in detail, but we will provide on notice a set of time lines during which decommissioning could take place.

Senator LUDLAM: Are you able to give us a rough idea? Does it take a decade? Does it take a year?

Dr Paterson: I would prefer not to because, as we indicated, the decommissioning planning and the application for the licence will both interest the duration of the program. We do not want to anticipate the approach that the regulator might take to that decommissioning, which might well affect the time line. So it would be inappropriate to provide a time line in a broadly indicative sense.

Senator LUDLAM: Will that contaminated material, in particular, be moved for storage also into a future national radioactive waste repository?

Dr Paterson: That is the international best practice.

Senator LUDLAM: Is that because a large number of other countries have already cut up reactors and dumped them at national or centralised storage sites? When you say international best practice –

Dr Paterson: There is quite a lot of international experience in terms of reactor decommissioning, of both research reactors and power reactors. We could supply information about sites that have been returned to greenfield conditions and the appropriate waste management practices associated with that.

Senator LUDLAM: Yes, that would be helpful. I would appreciate that, in terms both of what happens at the site of origin and of what happens at the site of the final destination of the material.

Dr Paterson: I think it would be useful for us to provide that on notice.

Senator LUDLAM: Thank you. I recognise that without a licence being issued you are not going to be able to provide exact detail, but what are the expected volumes of the material once you have decommissioned that plant, and what form, and how will you categorise it? What is the status for the repatriation of reprocessed waste from the UK and France? I ask you about that every couple of months. Is there any update since the last time we spoke on that issue?

Dr Paterson: The situation continues to be a matter for more detailed planning. ANSTO has looked and reviewed the plan fairly recently. We had a meeting on that last week. I think

the substantive information would be no different to that that has been presented to this committee before.

Senator LUDLAM: So from the UK and France it is still to be returned by 2016—that is your expectation?

Dr Paterson: Yes, that is the expectation.

Senator LUDLAM: In that meeting that occurred last week, can you tell us what the state of contingency plans are for the interim storage of that material in the event that there is not a national repository established by the time it returns?

Dr Paterson: In the event that a national store and repository is not available, we have indicated within our planning, as we briefed this committee before, that an interim store can be constructed on the Lucas Heights site. The scoping of that store is at a preliminary engineering phase.

Senator LUDLAM: Would that be considered a controlled action under the EPBC Act? I understand that it is just going to be a shed, basically, but that will require Commonwealth assessment?

Dr Paterson: It will indeed.

Senator LUDLAM: What is the nature of the discussions that you have with ARPANSA about licensing such a facility? I understand that they are doing early work on licensing of a remote site. Are they also doing parallel work if there is an interim site?

Dr Paterson: They have been briefed on the scope of our activities and they have been apprised of the general time lines with which we wish to apply. The status at the moment is that the process has been initiated by communication with ARPANSA, but there is not yet a formal application for a licence. But ARPANSA is familiar with the timescales and will resource appropriately to meet those timescales.

Senator LUDLAM: I will take those matters up with ARPANSA directly. I am just wondering what you have told them and if you have indicated that there is a real possibility that you might have to establish an interim store onsite.

Dr Paterson: We have indicated that to ARPANSA, and they are obviously aware of the engineering scope and the implications for an interim store being on our site.

Senator LUDLAM: Are there no technical reasons why the interim could not go there? At what point are you going to need to make a decision one way or another?

Dr Paterson: I think that we are planning on the basis that there will be an interim store at Lucas Heights.

Senator LUDLAM: Does that also relate to the core components in the other contaminated material from the decommissioned reactor, or is your deadline being driven more by the return of material from Europe?

Dr Paterson: The deadline for the interim store is being driven by the return of fuel. As you may be aware, you also get returned the materials that are used to process the fuel. So that includes other intermediate level waste. So we are planning for both of those in terms of the return.

Senator LUDLAM: The materials are very different, but the overall activity is the same as left our shores, isn't it?

Dr Paterson: Yes. The activity equivalence is one of the key principles.

Senator LUDLAM: Is it the case both for the very heavily contaminated core components from the reactor and for the reprocessing waste that is being returned from Europe, if it is, that the proposed national store is in itself only an interim solution?

Dr Paterson: In terms of intermediate level waste that has long-lived isotopes, we call it a store because it is a store. The ultimate repository then has to be developed.

Senator LUDLAM: Okay. Can you update us on proposals for the actual final store of that material, because we have concentrated mostly on the low level materials that will remain at one site or another in perpetuity for a couple of hundred years. But the plans for final disposal, if you will, of the very long-lived isotopes seems to have become extremely vague and we do not really hear very much about that anymore. So who is doing that thinking?

Dr Paterson: I believe that the policy department is DRET.

Senator Carr: I would encourage you to go and talk to DRET about this matter.

Senator LUDLAM: Okay, I will take that advice. All right, you have acknowledged that whether it is at Lucas Heights or it ends up in the Territory or wherever, this is indeed an interim matter. As far as ANSTO is concerned, there is no proposal yet afoot for a final disposal site.

Dr Paterson: From ANSTO's perspective, we have no specific knowledge in relation to a final disposal site for long-lived intermediate level waste.

Senator LUDLAM: Sounds like I had better go and talk to the other minister. Thank you for that. Has ANSTO taken a view of, or have you done anything in response to, the current call from a fairly diverse range of public health and medical organisations for an independent inquiry into the production, life cycle and management of medical radioactive isotopes in Australia—similar to some of the issues that Senator Eggleston was raising? First of all, are you familiar with the comments that I am referring to.

Dr Paterson: It is not absolutely clear to me, Senator. If you could elaborate, I might be able to be more helpful.

Senator LUDLAM: In particular the AMA and the Public Health Association of Australia made a call about a month ago to reduce our vulnerability to operational issues at the radioisotope plant at Lucas Heights—to do as the Canadians are doing and diversify our sources of supply

Dr Paterson: I am not aware of that, Senator.

Senator LUDLAM: What I might do then is provide you with some of that material. I am surprised that you have not heard of that. I will return to that issue in a moment. First, I want to pick you up on some comments that were reported in the press and you can tell me whether you were accurately reported or not. In the *Australian* on 25 May you were reported as saying that you believed that the safety culture in a key section of your facility is unacceptable and must change, and is firmly stuck in the 1970s. Were those comments correctly attributed?

Dr Paterson: I think the words are mine but I do not think that the attribution is absolutely correct.

Senator LUDLAM: Do you want to clarify the record for us?

Dr Paterson: Yes, I would like to clarify the record. In the interview with the journalist, I indicated that the vast majority of people in ANSTO adhere to a modern nuclear safety culture. I indicated that there is a very small number of people—if I were to think of the number of people I could count them on the fingers of one hand—who have taken an approach that is more reminiscent of the safety culture of nuclear organisations in the 1970s. By leaving out the earlier very positive comment about our staff and their very positive and effective safety culture, the impression was inadvertently created by the journalist that we have a very substantive problem. I do not believe that there is a very substantive problem; however it is always of concern if you have a small number of staff members who are not prepared to adopt a more modern safety culture. That would include a blame free culture, an approach to continuous improvement, a questioning attitude and an ability to take the wider implications of your actions into account, including the impact on your fellow staff members and so on. That characterises a modern safety culture. So I did indeed indicate that there were a small number of staff—four or five perhaps at the absolute maximum—who have decided, for reasons that are not absolutely clear to me, to continue with an older culture. That is something that we take very seriously.

Senator LUDLAM: Do you include in that number—and I am not going to ask you to name names—some of your staff who have blown the whistle on that same safety culture, or are they outside of your four or five?

Dr Paterson: I believe that there is no staff member who is a whistleblower who has been targeted in any way in relation to raising safety concerns.

Senator LUDLAM: Alright. So they are not included in your four or five?

Dr Paterson: Of the people we have presently at ANSTO, there is one ANSTO staff member on suspension. All other ANSTO staff members are working within ANSTO under our charter of ethics, which includes adherence to the type of safety culture that I am describing. As the article indicates, we are working with CoSolve to deal with some of these intractable issues on the ground.

Senator LUDLAM: Yes, I will come to them in a second. You have just had your second anniversary as CEO of ANSTO. You were engaged on 1 March 2009. When did you first notice these 1970s style intolerable attitudes towards safety?

Dr Paterson: As I indicated to you at an earlier estimates, it was during the course of the second month that I was at ANSTO when I was undertaking a series of facility reviews.

Senator LUDLAM: So tell us about the CoSolve contract. What cost is that to ANSTO?

Dr Paterson: The contract is still under negotiation and we will provide information on notice in relation to that.

Senator LUDLAM: When do you expect to have that finalised?

Senator Carr: Senator Ludlam, can I just intervene at this point. Mr Paterson has completed his report, a copy of which you have. Perhaps I could ask him to comment on these matters which he has just had an inquiry into.

Senator LUDLAM: There are four separate reviews under way that I am aware of, and I will go through each of them—

Senator Carr: We will deal with the safety issue question that you have just raised. I will ask Mr Paterson –

Senator LUDLAM: Given that that was tabled right before the session got up, I have not yet had the time to read it.

Senator Carr: I understand that, but you may want to hear from Mr Paterson, who can enlarge on his findings.

Mr Paterson: I would like to come back, Madam Chair, to respond to Senator Carr's comments in opening the session today, but I do not want to do that in the middle of Senator Ludlam's questions. I did delay my departure to ensure that I would be able to attend estimates today. The report that the minister refers to was a report of a review that I was asked to undertake that was commissioned in February this year. We were able to provide our copy of the report to the minister at the weekend. That is the reason it came so late to the committee. It was in fact due to be provided to the government by 31 May. But I think that it is useful to draw to the committee's attention the covering letter that I conveyed to the minister on behalf of the panel.

In undertaking the review we considered a whole range of documentation. We undertook site visits, we examined ARPANSA, ANSTO and ANSTO Health, and many of the staff at all levels at ANSTO and ANSTO Health. It was our view that there was a considerable focus on improving the current culture of health and safety at ANSTO. It was apparent that the management of ANSTO and ANSTO Health have instituted an active and continuous improvement program to build all aspects of ANSTO Health, including health and safety. In reviewing the practices we found that there are systems in place to manage radiological safety. Further, we did not find any evidence that the practices of ANSTO Health breached legislative requirements under the Australian Nuclear Science and Technology Organisation Act, the Australian Radiation Protection and Nuclear Safety Act or the Occupational Health and Safety Act.

There has been a process of change at ANSTO for a couple of years. We have made a number of recommendations which I can go to a little later. But I think that it is worth emphasising the point that in relation to both a culture of safety and the approach that has been undertaken, particularly the approach that has been undertaken over the time that Dr Paterson has been the chief executive, there is a clear focus of attention on health and safety issues. The panel was satisfied that there is no gap in the culture of health and safety at ANSTO and that they are meeting their statutory obligations. In the majority of cases, they are meeting the even more stringent standards that ANSTO imposes upon itself—that is, standards over and above those required by the regulators.

The panel comprised myself; a former chief scientist, Dr Jim Peacock; Mr Grahame Cook, who is no longer in the service but is a former Deputy Secretary of the Department of Education, Science and Training and a former board member of ANSTO; and Mr Tim Ayres, the State Secretary of the AMWU.

Senator LUDLAM: There are a couple of questions that I would like to ask on the basis of a quick scan of that document. But before I do that can you, Dr Paterson, just fill out some of the details of what CoSolve is doing when you plan to have your negotiations concluded with them?

Dr Paterson: I would prefer not to describe the process in detail because it is being handled by the people in ANSTO Health, and I do not think that it is appropriate to deal in detail with staffing matters where there may be implications for different staff members. But what we will provide is background on the scope of the work and the cost.

Senator LUDLAM: What I am interested to know is precisely what their mandate is on your safety journey. how long they will be engaged for and at what cost to ANSTO.

Dr Paterson: We will take that on notice.

Senator LUDLAM: Thank you. Mr Paterson, on the basis of your report here, two things jump out. One of them is your acknowledgement that the ANSTO Health production facility is an ageing one that may not be optimal for the current levels of production. It is fairly guarded language there, but I think we know what you are saying. Your notes on maintenance says that there are maintenance plans in place; there does not appear to be sufficient capacity for more long-term and strategic maintenance work to be done. Staff have told you that maintenance is been undertaken for urgent matters, but, obviously, other issues are lagging. How does this fit with your understanding of ANSTO's plans to increase production at that facility?

Mr Paterson: Certainly ANSTO has continually increased production at that facility, and the observations, whilst I do not share your choice of language in describing them as being guarded—

Senator LUDLAM: I just read your words back to you.

Mr Paterson: You did, then you said 'guarded words'. They were not guarded; they were the views of the panel. They were quite a clear statement of the view of the panel that it is an ageing facility and that the nature of that facility and the pressures of production do mean that maintenance failure or equipment failures can impact on production. That is a tension that ANSTO needs to manage. There are many staff at ANSTO Health who are firmly committed to trying to ensure that they continue to deliver product for the treatment of cancer patients, and they feel that very strongly. They want to maintain production wherever they can, and they feel it personally when production is interrupted by maintenance challenges in relation to the facility. So we have made some recommendations that make reference to the nature of the existing facility and we have made some recommendations in relation to how an alternative approach to maintenance may be pursued. That is a matter for ANSTO to consider within its budget challenges.

Senator LUDLAM: Would an alternative approach be to close that facility and start up a new one that is fit for purpose?

Mr Paterson: I do not think that is a realistic option, nor is it within the purview of the review. We were looking at the occupational health and safety issues. To pick up Senator Eggleston's point earlier in relation to the treatment of cancer patients in Australia, to close the existing facility would have profound consequences for the treatment of cancer patients in Australia.

Senator LUDLAM: I was not proposing that it be closed until an alternative facility has been built.

Mr Paterson: The facility continues to produce, and produce product reliably. Dr Paterson can comment on the extent to which it continues to meet its expectations of the

variety of customers, both domestically and internationally, that it serves. The observation still stands: it is an ageing facility. It is a facility with which, with available additional capital, you would do different things. You make choices in relation to available capital and those choices are being made by the ANSTO board.

Senator LUDLAM: What does that mean for the workforce and for the people who are in here in a facility that is not fit for purpose--

Mr Paterson: No, we did not say it is not fit for purpose.

Senator LUDLAM: On the contrary, it is entirely fit for purpose, even though maintenance has been delayed.

Mr Paterson: It is fit for purpose. For the regulator, which looks at this on a regular basis, there is no evidence to suggest that this facility is not fit for purpose. In fact, they find that it is fit for purpose because, if it were not fit for purpose, it would not have the licence from ARPANSA to operate. We did not conclude it was not fit for purpose, and I reject the assertion, Senator.

Senator HEFFERNAN: It was—

Senator LUDLAM: Do not respond. It just encourages him.

CHAIR: Senator Heffernan, I will come to you shortly. Senator Ludlam.

Senator LUDLAM: Let us move on, sir. Dr Paterson what do you take from this review? Where to from here on the basis of having this work undertaken?

Dr Paterson: We will be studying the full set of recommendations of the review. As I think the Secretary indicated, we have to look to the guidance and advice that the review contains and then craft an appropriate course of action that takes those recommendations very seriously and also achieves a more positive outcome for the ongoing relevance and importance of this fit-for-purpose facility for Australia. If I can just go to the maintenance issue, I think it is a particularly important one. It does indeed relate to the age of the facility. We have been developing a more comprehensive approach to the maintenance, having recognised the same factors that have been identified by the panel. That is a focus of our activities. It is important that in any production process we eliminate any single points of failure and introduce redundancy into the plant. That certainly will be a focus for the period going forward. In addition, we have already initiated work on improving the work flows within the facility, particularly the generator production, so that we can make it much more effective, and reduce the flows of product through the facility to the minimum distance that we can possibly achieve. We certainly look forward to studying this report in detail, to giving consideration to the recommendations, and to taking those forward into the practice of ANSTO. It is certainly the case that we believe that this review, which was welcomed by ANSTO and was welcomed by our staff, who had the opportunity to engage and interact with the panelists over a period of time, gave us confidence that the review would be challenging and ask deep questions about what we were doing and then we would be able to respond in a considered way.

Senator LUDLAM: Thank you for that. I turn to the Comcare report, which is currently being investigated. Minister, during the last estimates session concerning the Comcare report into ANSTO you said:

The quote was leaked in draft form and used for blatant political purposes which I thought was frankly inappropriate.

Senator Carr: I still hold that view, yes.

Senator LUDLAM: I would like to correct that view, if I may. The report was not leaked. It was released under freedom of information as a finished report. Can you confirm that that is the case?

Senator Carr: It was not a finished report. I think you will find that it has been used for quite extensive political purposes. The issues that were around Mr Reid related to an allegation that he had been suspended for alleged safety concerns. On the advice that was provided to me, that is not correct. It was in that context that the report had been given considerable airing through the ABC.

Senator LUDLAM: You would qualify a document that was released under freedom of information as being leaked?

Senator Carr: I think you will find there have been a number of releases of documentation around these matters. It was subject to FOI action. It does not mean it was not necessarily leaked in other processes.

Senator LUDLAM: That is interesting. Dr Paterson, have the two union reps, Messrs Howe and Bourke, who were suspended around an incident in September last year, been vindicated of charges in relation to bringing up safety issues? Are they back at work on normal duties?

Dr Paterson: In our agreement that we reached with the union for their return to work we agreed that we would continue our investigation, but on a no-blame basis. That investigation is still in train. ANSTO management still retains the view that they were suspended in relation to inappropriate behaviour in respect of escalating an incident and potentially intimidating some of their colleagues in the workforce. We retain that position. We also recognised, in discussion with the union, that with proper assurances from staff members it was more appropriate to return them to work to give them the opportunity to be in the workplace. We have been encouraged in that process that we were able to find a resolution that returned them to work while we continued a no-blame investigation in order to discover the types of behaviours and the types of approaches that we might take in the future to these sorts of incidents.

Senator LUDLAM: We are nearly out of time, so I might return to some of that stuff on notice. The final one is to end where I began on alternative sources of radioisotope production. I thank you for your answer to my question on notice, No. 567. Do you have a copy of that with you at the table?—because I am going to refer to it.

Dr Paterson: One will be provided to me.

Senator LUDLAM: While you are tracking that down, I would like to commend ANSTO on hosting the first meeting of cyclotron users from across Australia in a workshop on 15 December of last year. Can you supply the names of the institutions represented and whether or not there is a report available from that meeting that you are able to table?

Dr Paterson: We will be prepared to supply the names of the people who attended the meeting. We do indeed have a report of that meeting in an action plan.

Senator LUDLAM: That is something that you are able to table for the committee?

Dr Paterson: I believe it would be useful to table it.

Senator LUDLAM: I think it probably would, too. In question No. 567 I was asking ANSTO what research, what work you have done to identify alternative non-reactor sources of medical radioisotopes to reduce the vulnerability that we have to a very small handful of facilities around the world. In answer to that question, you provided a number of references to me, and I thank you for that. One of them was from the *European Journal of Nuclear Medicine* called 'The options for the future production of the medical isotope ⁹⁹Mo', which was written by the Nuclear Research and Consultancy Group. Are you aware that that consultancy group is the operator of a nuclear reactor in the Netherlands?

Dr Paterson: Yes, I am.

Senator LUDLAM: You are aware that they are building another reactor for isotope production?

Dr Paterson: I am not aware that they are building another reactor for isotope production. My understanding is that the process of building that reactor has been put on hold, and the bidders in the process have been informed that their bids will not automatically go forward into the next round. My understanding is that a future round has not yet been announced.

Senator LUDLAM: Okay, thank you. You also provided me with a hyperlink to the OECD Nuclear Energy Agency. Are you aware that that report was prepared by the NEA Secretariat, at the request of the high level group, and that the high level group did not endorse the contents of that report?

Dr Paterson: The high level group is an inter-country negotiating forum around these issues. The reports they produce are made available to the public because they are regarded as having substantive information that is useful for debate and discussion, and not all reports of the NEA are necessarily endorsed by all of the political bodies.

Senator LUDLAM: By the whole group; okay. So that report—the reason that I am going to this in a bit of detail—was prepared by Dr Alexey Likhov from the Nuclear Development Division. So both of the reports that you referred me to on the subject of alternatives to isotope production and nuclear reactors were written by people running nuclear reactors and, surprisingly enough, both of those documents suggest that the alternatives are not ready and will not be for a while. Did you at any time investigate any work by people who do not currently operate nuclear plants?

Dr Paterson: Senator, I want to correct a slight misunderstanding. The word 'nuclear' embraces both accelerators and reactors.

Senator LUDLAM: I stand corrected on that.

Dr Paterson: Therefore—and you will see this in our corporate plan—we pay equal attention to accelerator systems and reactor systems. ANSTO cannot be characterised as an organisation that is only interested in nuclear reactors. We are deeply involved in accelerator sciences around the world. We track them regularly and we are trying to build up the accelerator community in Australia, both the cyclotrons and, through the Australian collaboration on accelerator sciences, which includes the synchrotron, the Australian National University, the University of Melbourne and ourselves.

Senator LUDLAM: I accept your distinction, but the point I was making is that both of the papers you referred me to were written by institutions that are heavily invested in using nuclear reactors rather than alternative modes of production. Was that intentional? Was there no literature out there on alternatives?

Dr Paterson: There is literature on proposed alternatives. If one looks at the IAEA advice and the NEA advice, these are bodies that are much broader than nuclear reactor bodies. It would not be correct to say that those bodies have not looked at the alternatives that are available potentially in the future through accelerators. I think any responsible nuclear person would be very interested in any developments in the accelerator area because it is obviously useful to have a multiplicity of approaches to provide assurance of supply.

Senator LUDLAM: This is my final question: are you aware that Canada has specifically excluded any new reactor production after 2016? Through you, chair, I might table for Dr Paterson a very good report of the government of Canada's response to the *Report of the Expert Review Panel on Medical Isotope Production*—he may not have seen that—where they effectively say they are proposing to phase out nuclear sources because such a small number of plants and a very narrow supply chain is responsible for production. If you are not aware of that report, I am happy to provide it to you.

Dr Paterson: I am fully aware of the Canadian position.

Senator LUDLAM: Okay. Thanks very much, Chair.

Senator HEFFERNAN: Following directly on from the accelerator question, the fact is that India is about five years, and the rest of the world 15 years, from the commercialisation of thorium attached to an accelerator. Have you blokes started to think about the impact that will have on your industry?

Dr Paterson: We regularly review the general background developments in the thorium area. We are aware that India has a long-term interest in the development of thorium reactors because they have a very strong supply of thorium—

Senator HEFFERNAN: As we do.

Dr Paterson: Yes. The thorium fuel cycle was explored very actively in the 1970s by a number of countries, including Germany, for example. It remains an interesting fuel cycle. Certainly we expect that over the next 10 to 20 years there will be increasing interest in the thorium fuel cycle. At present, however, it is certainly my conviction, having spent a lot of time in this field and speaking from that historical basis of information, that the full cost of development of a thorium fuel cycle would need a very large economy to effect that. Many challenging aspects of that fuel cycle have been regularly underestimated by casual observers.

Senator HEFFERNAN: Just for the record, one tonne of thorium is 200 tonnes of uranium, which is 3.3 quarters of a million tonnes of coal in energy resource, but I will get off that. Obviously you can turn it off because it is attached. If something goes wrong, you can turn it off. Does the ANSTO-owned PETNET cyclotron business operate in compliance with the Australian government's competitive neutrality policy, to the best of your knowledge?

Dr Paterson: It does indeed

Senator HEFFERNAN: As you know, there are allegations, which I am about to go through, that you are selling the product under the cost of production. Does PETNET charge prices that reflect its true production costs?

Dr Paterson: It does.

Senator HEFFERNAN: How do you demonstrate that?

Dr Paterson: The way we demonstrate it is to have a plan for the operation of PETNET that sets objectives for the budget every year, and then to operate the facility to achieve its budget and its broader business objectives. That is annually reviewed by the ANSTO board. The figures for PETNET have been trending quite positively during the course of the last year

Senator HEFFERNAN: So in putting that equation together and in terms of, as the report says, the run-down—however serious or less serious that is—of the infrastructure, in your commercialisation to compete against other people who supply the same nuclear source medicines as you, do you allow for the depreciation and the cost of that in your costs?

Dr Paterson: We do, indeed.

Senator HEFFERNAN: Does PETNET generate commercially acceptable profits?

Dr Paterson: At present it is not a profitable company. But the trajectory of the company is within the envelope we expect to achieve profitability.

Senator HEFFERNAN: When you are expecting to make a profit?

Dr Paterson: It will not be in the next financial year, but potentially in the year after that.

Senator HEFFERNAN: If you are not making a profit, selling product at a return that does not give you a profit, you could understand the difficulty your competitors have in trying to compete with you. Does PETNET adhere to its competition policy? If so, please give details of how it accomplishes acceptable profits, which you say you have not got, and does not abuse its position in the market, which is the point I am trying to make. How do we know that you are not just slicing the market?

Dr Paterson: I think we are subject to audit. The auditors ask questions of how the business is constructed and how we are operating according to those plans; and they have that power of review. It is also considered annually by the ANSTO board when we consolidate our accounts. The board applies its mind to that as well.

Senator HEFFERNAN: Could you provide to the committee the details of the proof of what you have just said in those reports?

Dr Paterson: I do not believe it is appropriate to supply commercial-in-confidence information within a market that is highly competitive. I think it would be a market distortion in itself.

Senator HEFFERNAN: Could you provide the tests for the ticks rather than the information? What are the questions they ask you? Obviously you have to answer that.

Senator Carr: We take that on notice.

Senator HEFFERNAN: I understand that PETNET has submitted pricing to a New South Wales Department of Health tender. Did you comply with the requirements of competitive neutrality in that bid?

Dr Paterson: My understanding is that we did indeed.

Senator HEFFERNAN: In May 2009 the investment cost for PETNET was \$10 million. You responded on 31 May, 2010 with a figure of \$12.5 million, including start-up losses. What is the investment cost now?

Dr Paterson: The investment cost is the same as that latter figure that you used.

Senator HEFFERNAN: So it is \$12.5 million. What is the expected payback? What is the current return on investment?

Dr Paterson: The payback period from our review during the last year is 10 years.

Senator HEFFERNAN: It is not on this sheet but it says here: Do you still barrack for the Springboks? Will you take that on notice?

Mr Paterson: Yes, he does, Senator.

Senator HEFFERNAN: You dobber.

Dr Paterson: I can say, Senator, I was very disappointed in the last few minutes of the Blues game.

Senator HEFFERNAN: In a previous committee meeting you described ANSTO's relationship with Siemens as a franchise.

Dr Paterson: Correct.

Senator HEFFERNAN: What are the financial arrangements involved in being a Siemens franchise?

Dr Paterson: We have a contract with them that establishes a number of financial obligations. Those financial obligations relate obviously to the use of the brand. They relate to the obligations that Siemens has to ensure that they provide us with a number of spares and other inputs into the business of a similar nature.

Senator HEFFERNAN: You can use the cheat sheet, if you want.

Dr Paterson: I think he is alerting me to the fee that we pay to Siemens for those services, which is of the order—

Senator HEFFERNAN: That is my next question. Like most franchises, are you required to pay a proportion of the revenue—it is very good that your offside is on the ball—to Siemens and, if so, at what level?

Dr Paterson: We pay \$35,000 per annum in a franchise fee to Siemens.

Senator HEFFERNAN: You pay \$35,000. Is it true that Siemens received a million dollars to allow the ANSTO subsidiary to operate a PETNET franchise?

Dr Paterson: That is not true.

Senator HEFFERNAN: So if it is not true, those sorts of costs are not included in the \$12.5 million you talked about paying back over 10 years?

Dr Paterson: That is a consistent statement, Senator.

CHAIR: We have another couple of senators with questions.

Senator HEFFERNAN: Okay. I have a couple more, which I will put on notice.

CHAIR: Thank you. Senator Cameron?

Senator CAMERON: Dr Paterson, when did you receive the review report?

Dr Paterson: We were asked to comment on the factuality of the report. We saw that, I think, during the beginning of last week. We did not receive a final copy of the report, which I believe was completed on Friday last week.

Senator CAMERON: So you would not have had time to determine a management process to deal with the recommendations, would you?

Dr Paterson: We have discussed a management process in the ANSTO board. The obvious first step is to receive the report and to review the recommendations. We will be taking our review of the recommendations and our proposed actions into the next ANSTO board meeting.

Senator CAMERON: You will be advising the board of the priorities in relation to the recommendations?

Dr Paterson: We will supply them with the content of the review. I know that they have a keen interest in that. In fact, two of our board members attended the review panel and engaged with the panel for a considerable period. From that point of view, there is a keen interest in the board and they would both want to give their own inputs from the results of the review, and get a clear understanding of management's response to the review and the actions that we would intend to take.

Senator CAMERON: You are applying recommendation 6, the no-blame culture, in the current circumstances?

Dr Paterson: Yes. The no-blame culture concept was first introduced to ANSTO in April, the month after I joined ANSTO. It was the first foray into strengthening the safety culture and bringing it into a more consistent framework with modern practice.

Senator CAMERON: Would that avoid a situation where workers are stood down for indeterminate periods?

Dr Paterson: There are many reasons why people might be stood down. If people are operating in a nuclear facility and there is a feeling that they might constitute a risk to their colleagues, it clearly is good practice under those circumstances to take appropriate action, and ANSTO believes that it is right to do that. However, for the no-blame culture to become pervasive, it has to pervade from senior management to the cell face. I believe that we have made great strides with the no-blame culture. We have seen an increase in incidents reporting. We have seen shortened investigation periods and incidents are closed out more effectively. The attendant improvement actions are taken and closed out more effectively. We have seen really positive benefits from moving towards a no-blame culture. But I would not want to suggest that the IAEA was wrong when it said that there are certain circumstances in which a no-blame culture cannot be applied. One of those is negligence and the other is deliberate misdemeanours.

Senator CAMERON: There are a range of actions in between negligence and deliberate misdemeanours, surely? If someone is deemed to be a danger, how do you then assess whether that individual is a danger because of bad management practices or lack of training?

Dr Paterson: Certainly training is an area we have concentrated on very intensively, and we do have a training matrix that is established for all of ANSTO's health activities. That is a very detailed training matrix. We have a training tracking system which ensures that all staff maintain and develop the appropriate training. That training goes right from the general

manager to the staff at the cell face. So we are confident that training framework creates the context for workers both to have the practical skills and the attendant reporting responsibilities clearly in place. I agree with you that one has to utilise the standing down of a staff member in a very, very careful and considered way. Therefore, when such action is being taken by ANSTO it has typically not been done in a rush or in a hurry, but by the provision of written reports of the considerations that have to be brought to the attention of the CEO in order to make that type of decision. Certainly it is on the basis of interviewing more than just individual members of staff but a wide range of members of staff, coming to a provisional judgment in that regard, and then ultimately forming a view. We would not lightly stand somebody down, and we certainly would not stand somebody down for raising anything of a safety nature.

Senator CAMERON: Will you be in a position at the next estimates hearing to advise of the priorities and actions that have been undertaken arising from the review?

Dr Paterson: We would certainly want to be in a position to do that at the next estimates.

Senator Carr: I have watched this issue carefully within ANSTO. I asked the Secretary and commissioned this report following the allegations that had been made. I wanted to satisfy myself that the assurances I had been given could be verified in an arms-length process from ANSTO. Our intention was essentially to develop a new ANSTO. We have had very significant investments—a new senior management team, a new board. We are in the process of ensuring that ANSTO is able to play a more integrated role within the research community in this country, as well as undertake what I believe to be very important commercialisation opportunities through the use of the facilities to get a much stronger economic focus on the work that ANSTO has been doing. The matters that have been raised, which have seen one person suspended on full pay for over two years—

Dr Paterson: It is close to two years now.

Senator Carr: Two years, thereabouts, for extensive industrial relations processes through the commission. A number of other processes have been undertaken. I think the processes have reached the point where we can say we have satisfied all the natural justice arrangements.

Senator CAMERON: That nearly has to be a Guinness Book of Records—two years suspension.

Senator Carr: Full pay.

Senator CAMERON: Still, the issue is—

Senator Carr: You are quite right, Senator. The matter ought to be concluded. I think that is what the secretary of the New South Wales Branch of the AMWU has made clear. The matter ought to have been concluded some time ago. Because these processes were in train those matters could not be brought to conclusion.

Senator CAMERON: That is why I am keen to hear how these recommendations are going to be dealt with to avoid that position.

Senator BUSHBY: I have a couple of questions. In answer to question upon notice AIS 6, you noted that the July 2010 survey which you conducted, amongst other things asked about the attitude of the public to nuclear power. It showed that 89 per cent of respondents thought

Australia should have a national debate about the advantages and disadvantages of nuclear power and that 8 per cent disagreed that we should have that national debate. Further, 56 per cent thought Australia should establish a nuclear power industry and 28 per cent disagreed. How do those figures compare with similar surveys that you have conducted in the past?

Senator CAMERON: Was that before the Japanese disaster or after?

Senator BUSHBY: Excuse me; I am asking the question, Senator Cameron.

Senator CAMERON: I am just asking.

Dr Paterson: In terms of the broad background of surveys that have been undertaken in the past and those that are in the public domain, they seem to be consistent with the general public debate at the time, which was in July of 2010. The most recent surveys I have seen on Australian attitudes to nuclear power have naturally followed the events in Daiichi and Fukushima in Japan. I think globally the debate is very much a swings-and-roundabouts debate at the moment. Some countries have shown remarkable resilience in their attitudes to nuclear since Daiichi; others have taken very different views of it. I am not particularly a strong commentator on why these dynamics exist, but it would seem to me that ANSTO's broader survey was to determine what people knew about ANSTO, and we found that not everybody understands ANSTO's mandate. The other thing that is challenging for us here in Australia is that a very large number of people have an extremely poor understanding of radiation and radiation phenomena. It is one of our bounden duties to improve people's understanding of radiation so that they can have a balanced and fact-informed view of radiation, particularly as it is so useful in medicine and so widely applied in all sorts of activities in industry. Irrational and unbalanced fears of radiation are certainly not in the interest of Australians. My general view is that we will see a dynamic in all of these debates. The role that ANSTO plays is to provide factual information and support to advisory processes around policy. That is our core business.

Senator BUSHBY: What you just said then about your thoughts that people probably do not fully understand or appreciate radiation and what that means and how it is used and the dangers and the benefits feeds into the high result in the July 2010 survey that a lot of people thought there should be a national public debate. People hold all sorts of different views, I imagine, about nuclear energy. They would benefit from being able to put their views forward both for and against if there were a proper, thorough national debate about the issues. It would also lead to more educated Australians at the end of that or to a higher level of education about the issues.

Dr Paterson: Certainly the public debate is in train; it is not dependent in any way on ANSTO. We will continue to provide information that supports a fact-based and evidence-based review of these things by the actors who request information from us.

Senator BUSHBY: But there is a tendency, if you raise the issue and try to have a national debate, for people to say, 'Do you want to have a nuclear power station in Tasmania?' or 'Close it down'.

Senator Cameron injecting—

CHAIR: Senator Bushby, have you finished your questions?

Senator BUSHBY: I have finished.

CHAIR: Thank you, then, to Dr Paterson and the staff of ANSTO for coming in this morning.

IP Australia

[10:33]

CHAIR: Welcome, Mr Noonan. Would you like to make an opening statement?

Mr Noonan: No.

CHAIR: We will go straight to questions. Senator Boyce.

Senator BOYCE: Thank you very much, Chair. I appreciate being given this time. My questions relate to the plain packaging of tobacco. The Attorney-General's Department, via the Australian Government Solicitor, has provided legal advice on five occasions to the Department of Health and Ageing on the topic of plain packaging of tobacco. Has IP Australia been asked to provide advice to the Department of Health and Ageing or to Attorney-General's on this topic?

Mr Noonan: There have been discussions involving a number of agencies, including ourselves.

Senator BOYCE: Is this the interdepartmental committee on plain packaging?

Mr Noonan: It includes the interdepartmental committee. We are not the legal adviser to the government on these issues.

Senator BOYCE: I realise that but, given that one of the issues that has been raised is the potential for stripping away intellectual property rights from tobacco manufacturers, I thought IP Australia's advice would have been sought.

Mr Noonan: We have not been asked to provide legal advice; so the question of whether a restriction on intellectual property rights is permissible in relation to international trade agreements would be a question for the government's legal advisers on international trade.

Senator BOYCE: Could you characterise the discussions on this topic that you have had with the Department of Health and Ageing and various other departments?

Mr Noonan: I am not quite sure that I could address that question. Could you be a bit more specific about that?

Senator BOYCE: You have said that you have provided advice.

Mr Noonan: We have had discussions.

Senator BOYCE: You have had discussions. What have you discussed?

Mr Noonan: Our interest naturally relates to trademarks, as you have indicated, so we have wanted to understand the extent of the proposed restrictions and to understand how that would relate to the international treaties involved.

Senator BOYCE: You would have seen a report from the Secretary of the ICC, Jean-Guy Carrier, saying that these changes could set a dangerous precedent and be at odds with international laws protecting trademarks and intellectual property rights?

Senator Cameron interjecting—

Senator BOYCE: I am sorry; I cannot hear you, Senator Cameron.

CHAIR: Senator Boyce, just ignore it and continue.

Senator BOYCE: Thank you. Sorry, Mr Noonan; did you hear my question?

Mr Noonan: I do not think I have seen that particular report, but I have seen media reports to similar effect.

Senator BOYCE: Has IP Australia, at its own behest then, done work to come to an opinion on whether plain packaging here will be in contravention of international law?

Mr Noonan: As I have indicated, we are not the legal adviser to the government on the application of international trade agreements. You would have to address that question in the first instance to the Department of Foreign Affairs and Trade.

Senator BOYCE: But you do have an expertise in the area of trademarks, and not just Australian trademarks. You do interact all the time with other countries in terms of trademarks, don't you?

Mr Noonan: Yes, that is true.

Senator Carr: So, Senator, when is the Liberal Party going to stop collecting donations from the tobacco industry?

Senator BOYCE: I am not sure what this has to do—

Senator Carr: I just thought that maybe you could inform the committee.

Senator HEFFERNAN: Can I take a point of order?

Senator BOYCE: Chair, this is ridiculous.

CHAIR: Senator Heffernan has a point of order.

Senator COLBECK: This is a serious question—

CHAIR: Order from the committee, please! Senator Heffernan has a point of order.

Senator HEFFERNAN: I think that is completely out of order—and I would like to declare that I am not a smoker.

Senator Carr: So you will not take any money from the tobacco companies.

CHAIR: There is no point of order. Senator Boyce.

Senator HEFFERNAN: Do you want me to go through some of your dodgy donations?

Senator COLBECK: This is a serious question, Minister. You might want to play silly—

CHAIR: Senator Colbeck.

Senator BOYCE: Perhaps the minister might like to tell us how much money he has put aside to pay for the legal case that may follow if you get this law wrong, Minister.

Senator Carr: I have not put aside any money for a legal case.

Senator CAMERON: You just want to protect big tobacco. When Tony gets on his bike, he should have 'I support big tobacco'—

Senator BOYCE: No. We want to protect Australia from poor law-making.

CHAIR: I am not going to continue if people shout across the table at each other. Senator Boyce, you have the call.

Senator Carr: What I can say is that smoking kills 15,000 Australians every year and it is costing us \$31.5 billion each year. So, in terms of what the Commonwealth has to spend to deal with the consequences of tobacco, it is also relevant.

Senator BOYCE: The relevance of this to IP Australia escapes me, I must admit. Mr Noonan, did you have something further to add before all that happened?

Mr Noonan: I think I have lost track of where the question got to.

Senator BOYCE: We were talking about the fact that, yes, you do have a constant interaction in the area of trademarks and the international application thereof. So could you give me your opinion on the plain packaging laws, as proposed?

Senator Carr: Officers are not required to give an opinion, Senator.

Senator BOYCE: IP Australia is entitled to be asked if they have come to an opinion on the topic. Have you come to an opinion on the topic?

Mr Noonan: It is not my role to come to a legal opinion, but obviously the relevant article in the TRIPS agreement, which is the most relevant international agreement, refers to the fact that the use of a trademark should not be unjustifiably encumbered. So obviously that involves the possibility of 'justifiable encumbrance'.

Senator Cameron interjecting—

Senator BOYCE: Is there any instance in Australia or elsewhere where—

Senator Carr: You should have been asking these questions, Senator Cameron, so that we would know exactly what was going on. You should have an interest in this, as well.

Senator BOYCE: intellectual property has been taken away from an industry in the way that is proposed here?

Mr Noonan: I would not be able to answer that question across such a wide—

Senator BOYCE: Let us try Australia, then. Has this ever happened in Australia before, to your knowledge?

Mr Noonan: I am not aware of a precedent for this kind of plain packaging initiative in Australia.

Senator BOYCE: Have you looked elsewhere? You have not looked at any other examples potentially of this?

Mr Noonan: No; we have not conducted research.

Senator BOYCE: Do you think the Australian government has exposed itself to damages claims from the tobacco companies—

Senator Carr: You cannot ask the officer—

CHAIR: That question is asking for an opinion, Senator, so I will ask Mr Noonan whether he wants to respond to any part of that question.

Mr Noonan: I think my previous answers about not being the legal adviser would cover that question.

Senator Carr: Senator, DFAT are the appropriate department to deal with questions in regard to our international legal obligations, and they are appearing on Wednesday. Can I make the suggestion that you apply your interest to that estimates hearing.

Senator BOYCE: I will be doing so, Minister, as I did last week to the Attorney-General's Department. We are trying to ensure that we check out every area here. The Australian federal government lobbied Thailand recently during some WTO talks not to put health warnings on

bottles of alcohol there. Were you involved at all in providing advice to the Australian government around that area and why that should happen?

Mr Noonan: I am not aware that IP Australia was involved in those discussions.

Senator BOYCE: Also, there is information suggesting that \$10 million has been set aside out of the budget to defend this bill against potential tobacco company legislation. Are you aware of this?

Mr Noonan: I am not aware of any.

Senator Cameron interjecting—

Senator BOYCE: Point of order, chair. I take offence at that comment.

Senator COLBECK: We take offence at the implication that we have been bought. Perhaps Senator Cameron should withdraw his inference.

Senator CAMERON: No, I won't.

CHAIR: I did not hear the inference.

Senator COLBECK: Rubbish! You are sitting right next to him.

CHAIR: I did not hear. I have people shouting at me from either side.

Senator BOYCE: Chair, I take personal offence at the comment that Senator Cameron made, which I heard, that, 'That's what \$3 million buys you.'

CHAIR: Senator Cameron, will you withdraw?

Senator CAMERON: I will not withdraw—three million bucks and they've got them.

CHAIR: Senator Cameron, I ask you to withdraw that comment, please.

Senator CAMERON: No.

Senator COLBECK: Perhaps, Chair, we could ask that you refer this to the President of the Senate.

Senator HEFFERNAN: We might also ask what the CFMEU is going to have to proffer up—

CHAIR: Senator Heffernan, I was asking whether you have questions on this.

Senator HEFFERNAN: I do, indeed.

Senator EGGLESTON: Chair, I have a question.

CHAIR: Senator Eggleston.

Senator EGGLESTON: Senator Carr, you just said that the cost of smoking to the health budget was \$31.5 billion, which is a bigger figure than I have ever heard before. Can you provide the committee, on notice, with documentation to support that cost?

Senator Carr: The social and health costs of smoking are estimated, according to the advice provided to me, to be \$31.5 billion each year. Smoking kills over 15,000 Australians every year and is the largest preventable cause of disease and premature death in the country. That is the advice that I have.

Senator EGGLESTON: I thought you said it was the health cost. I am specifically interested in that.

Senator Carr: I have indicated that the social and health costs—

Senator EGGLESTON: The social cost is another matter because that involves all sorts of extras.

Senator Carr: I cannot provide you with any further information than what I have just provided to you. That is the advice that has been given to me.

Senator HEFFERNAN: I have one question on that and then I want to go to gene patents. Obesity is a bigger cost and a bigger killer than cigarettes. Will the government be legislating against obesity? There are some excellent examples of obesity—

CHAIR: Senator Heffernan, that is not relevant—

Senator HEFFERNAN: Will the government be legislating against obesity? There are plenty of obese people around. Perhaps I could go to gene patents and ask: what is the history of patent examiners in IP Australia recommending or expressing concerns on patent applications that they consider should not have been granted?

Ms Beattie: Senator, your question as I understand it is: what is the process for patent—

Senator HEFFERNAN: No. What is the history of your examiners—there are various levels of examiners—anywhere in the examiner line, who have examined a patent and said, 'I don't think this should be granted,' and yet it has been granted?

Ms Beattie: The examiners themselves examine patent applications. They raise objections in relation to whether or not the claims in that patent application meet the legislative requirements. Those objections are raised with the applicant. The applicant can provide a counterargument or make amendments in order to satisfy the legislative requirements.

Senator HEFFERNAN: Obviously I know the answer, but if I give you examples of patents that were recommended by highly qualified patent examiners as ones that should not have been granted, would you be able to provide to this committee the paper trail that you then went back to which confirmed the patent's success? Where an examiner has said in good faith, 'This patent should not be granted' and gives the reasons why, yet down the track his objections are overruled—bearing in mind that you get your income from patent applications to keep everyone paid?

Ms Beattie: Patent examiners have an independent delegation which is provided to them from the commissioner in relation to their competence to independently examine applications. They do those examinations. There are provisions for when they have concerns; they can raise those with their supervising examiners or their senior examiners. All examinations that, for example, go to a third report are supervised by a supervising examiner; so there is a second pair of eyes that would look at those applications. We also then have independent quality assurance to ensure that the applications have been granted correctly. So there is an independent check of that. So there are a number of checks and balances within the system to ensure that valid patents are granted.

Senator HEFFERNAN: Can you give this committee an assurance that anyone who is a whistleblower, as it were, in this regard is not subjected to any penalties or any disadvantage in the IP examining department?

Mr Noonan: Senator, perhaps I might intervene. Your questions are very hypothetical and vague—

Senator HEFFERNAN: I am afraid that you are going to find they are not.

Mr Noonan: It is difficult for us to give you assurances. If you can provide us with some details, we can certainly get—

Senator HEFFERNAN: I want the assurance first that there will be no penalties.

Mr Noonan: We apply the whistleblower provisions which apply to public servants to their full extent.

Senator HEFFERNAN: I will have a think about that. Section 70 of the Patents Act 1990 is where I want to go. IP Australia granted a patent extension of one year, four months and 13 days for the EPO as patented in the Australian patent 600,650. As a result of this and all of Amgen's patents on EPO in 2004—that is the year the patent was supposed to expire—it earned Amgen, its owner, about \$11 billion in worldwide sales. In Australia EPO was the No. 1 most expensive drug on the highly specialised drug list for years. In 2004, the year of the expiry, the cost for the PBS was \$52 million. On what basis did IP Australia decide to extend Amgen's patent monopoly by one year, four months and 13 days?

Mr Noonan: Perhaps I could talk generally about the extension of pharmaceutical patents.

Senator HEFFERNAN: You can have a general talk, but I want you to be specific on this one.

Mr Noonan: Yes, I will address this specific case. Generally, the term of a patent is 20 years. However, in the case of pharmaceutical patents, the patent term can be extended by up to five years, in recognition of delays in the regulatory approval process at the front end of the patent period. So, in other words, if the patent owner is delayed in getting their product to market because of having to comply with the significant regulatory approval processes that apply to pharmaceuticals, some extension to compensate for that is possible. As to what would have happened in a particular case, a number of legislative criteria are applied. I would not be able to respond to those in detail here; I would have to take the particular case on notice.

Senator HEFFERNAN: So could you take on notice as well the paper trail that led you to the logic to extend that particular patent by one year, four months and 13 days—the decision-making process?

Mr Noonan: Yes.

Senator HEFFERNAN: You have told us what generally happens. It does not happen in a lot of cases. So what makes one case more special than another? There is often that front-end delay.

Mr Noonan: Yes. I will take that question on notice to be: why did we grant this particular extension in relation to this particular pharmaceutical?

Senator HEFFERNAN: And the logic and the paperwork that enabled you to come to that decision—the paper trail.

Mr Noonan: Yes. We will explain the reasons for it.

Senator HEFFERNAN: Did IP Australia conduct any economic analysis on the impact of the Australian patent, that particular one, 600,650, prior to making the decision to extend the term of the patent? We had a hearing in another place where the Secretary from the Department of Health and Ageing was at serious odds with the person sitting on your right on this question. Did you do any economic analysis on it before you granted it?

Mr Noonan: Again, I could not answer that question without reviewing the particular case, so I would have to take that on notice.

Senator HEFFERNAN: So take that on the notice. Did IP Australia consider the impact on the PBS of such a patent term extension?

Mr Noonan: I would have to take that on notice. But I would point out that some of these factors that you are mentioning are not included among the legislative factors that are set out in the Patents Act.

Senator HEFFERNAN: At another place, I will come in great technical detail to the response that you just had whispered in your ear there. Did IP Australia seek input from other Australian government departments, including the Department of Health and Ageing, prior to granting the patent term extension to Amgen over that particular patent?

Mr Noonan: The decision under the Patents Act is for the commissioner to make, so the commissioner's delegate must make that decision. One of the factors, of course, is the delay in the regulatory approval, which is a matter that the Therapeutic Goods Administration is involved in. So, to that extent, there would be some consideration of what the TGA had done.

Senator HEFFERNAN: I will be a bit more specific: which departments did you consult before you granted the extension?

Mr Noonan: I will have to take that question on notice as to the particular case, but we would point out that the Patents Act gives the decision to the commissioner and not to a range of departments.

Senator HEFFERNAN: What representations did Amgen make to IP Australia in support of its application for a patent term extension?

Mr Noonan: I would have to take that question on notice. Wherever there is an extension, an application must be made by the applicant.

Senator HEFFERNAN: And could you provide to this committee the paperwork that was in that consideration with Amgen; their representations and their actual paperwork?

Mr Noonan: I will certainly take on notice your request to provide the reasons that Amgen gave and we would apply the usual considerations in deciding how much information we would be able to provide in response.

Senator HEFFERNAN: Mr Noonan—this is not on my list of questions—are you any relation to Mick Noonan in Wagga?

Mr Noonan: I was not the last time you asked that question, so I doubt whether I am now.

Senator HEFFERNAN: Some of those blokes over there are claiming you. We have heard admissions during the patents legislative inquiry of patents that have been granted in the past that were untidy and probably should not have been granted; they were too broad. Given the history of some patent examiners and the huge load of work for these examiners—I suppose that is the way it is—have we taken into account any more firmly these days objections from patent examiners which, in the past, by admission during the inquiry, have been too broad and probably should not have been granted? Have we used the view of the patent examiners—who as recently as this year were objecting to patents being granted—in considering the failure to be tighter with the interpretation of patent law? Obviously, this comes to including in all those patents the discovery as well as the inventive work.

Mr Noonan: That is a very general question. I would say that the group as a whole does its best to make the best decisions at all times, and that is a constant ongoing process.

Senator HEFFERNAN: I want to correct a couple of things that are on the record with IP Australia in response to questions in the hearing. In the hearing I asked Ms Press a question about the gene:

I know that everyone on the committee—though bemused by this—knows by now that the human gene inside the body is located on one of 46 chromosomes that make up the human genome. There can be no argument about that. But when you tell us that the gene has been ‘modified’, all you mean, don't you, is the relevant gene has been removed—that is isolated, from one of those 46 chromosomes?

The answer—which is incorrect—was:

No, Senator. That EPO gene had intragenic intervening sequences, and the researcher would necessarily have to remove them to make the recombinant protein. If you do it by just taking out the fragment of chromosomal DNA, you would not get a recombinant protein that matched EPO.

That is not the correct answer, is it? Researchers do not remove intervening sequences and introns; this is done by a natural cellular process called splicing and not by a researcher; isn't that correct?

Ms Beattie: Complementary DNA, which I think is what that is alluding to, necessarily removes the non-coding parts of the molecule and all you have then is the coding parts. That is something that is done by the researcher; it is not something that occurs in the body. That is my understanding, but I am happy to ask Ms Press to clarify that.

Senator HEFFERNAN: Could I provide you with the science background? It appears to me, sadly, that IP Australia does not properly understand how genetic information is processed in the cells during the natural process leading to a proportion of a protein and when researchers actually come into play. Could I provide you with the information that I have and then get you to respond? We are just about out of time here.

Ms Beattie: I am happy to do so. But I might just reflect that Ms Press is a biotechnology expert, including having done research in the US as well as in Australia.

Senator HEFFERNAN: I do not doubt that for a moment. Thank you very much. We will come back to it.

CHAIR: We will break for morning tea. I thank IP Australia for their attendance this morning.

Proceedings suspended from 10.58 to 11.15

Commonwealth Scientific and Industrial Research Organisation

[11:16]

CHAIR: We will make a start. Welcome to the CSIRO and Dr Megan Clark. Do you have an opening statement that you would like to make, Dr Clark?

Dr Clark: No, I do not, Chair.

CHAIR: We will begin straightaway with questions. Senator Colbeck?

Senator COLBECK: Thank you, Chair. I want to start with the enterprise bargaining negotiations that have been recently conducted. Could you confirm an annualised pay increase of three per cent and, following on from that, could you give us the executive

assessment of what the implications of the finally agreed position are at this stage for how much your total staffing numbers will rise or fall by the end of the life of the agreement?

Dr Clark: Senator, there was quite a bit of noise while you were asking that question. I certainly caught the beginning, relating to the three per cent annualised, which I can confirm. You then had a question in the middle that was—

Senator COLBECK: Just to get your assessment of what the implications are of that for the organisation and what that does for staffing numbers by the end of the life of the agreement.

Dr Clark: We have certainly budgeted for that three per cent annualised; that is in the agreement.

Mr Roy: That is correct, Senator. It was budgeted into the agreement and that is what we went in to staff with, the three per cent annualised to start off with. We do not anticipate that that, within itself, would have any demonstrable impact on staff numbers.

Senator COLBECK: Can you give us an assessment of how that has been received through the organisation?

Mr Roy: We negotiated with the unions, as you may be well aware, Senator, over a period of time. In April this year we agreed with the unions. They have then sought the advice of their members and their council. The council has come back with the members and said that 79 per cent of their particular members who voted support the agreement. We are now going through the process of testing the consistency of the agreement with the government bargaining framework through the Public Service Commission and then we will put it to a vote with all staff, we anticipate in June. We expect that will get a positive response rate from staff.

Senator COLBECK: Can you take me back to the level of acceptance number that you gave me a moment ago?

Mr Roy: We were advised about a fortnight ago by the staff association that, from the polls that they had conducted, ahead of providing us with a final commitment, they supported the agreement. Seventy-nine per cent of their members who did vote supported the staff association; that was a positive vote.

Senator COLBECK: What proportion of the membership did vote?

Mr Roy: I do not have visibility of that. It is not something that the staff association would normally disclose to us. Effectively, the union are developing their own position as to whether or not they will support the agreement. They do that by consulting with their members. About 41 per cent of CSIRO staff are members of the union. Based on that feedback they would then provide a response to CSIRO management, which they have. They have said that, of those staff who did vote, 79 per cent supported it.

Senator COLBECK: What is the membership of the staff association?

Mr Roy: It is about 40 per cent of our staff there, Senator.

Senator COLBECK: So at best, roughly 30 per cent of the staff, if 100 per cent of the members of the staff association voted, are reflected as part of those numbers at this stage?

Senator CAMERON: It is better than individual—

Mr Roy: I am not sure that I follow.

Senator COLBECK: I am not actually having a crack at that. I am trying to get a sense of the proportion. Don't get too defensive too early, Senator Cameron.

Senator CAMERON: I did not think that was defensive, actually.

Senator Carr: As I understand the advice, there has not been a vote of the staff as yet.

Senator COLBECK: I understand that.

Senator Carr: There has been a vote of the union and nearly 80 per cent of the union—

Senator COLBECK: Staff association, I think. We have got an indicative number from the staff association.

Senator Carr: What they call a 'staff association', we call a union. With respect to the CPSU branch at CSIRO, which is the main union, 79 per cent of those that participated in the ballot supported the agreement, which suggests to me that union staff supported the agreement.

Senator COLBECK: Is there a difference between the staff association and the union?

Mr Roy: We have four unions that cover CSIRO, Senator. I think it is fair to say—I do not have the exact number—that probably 98 per cent to 99 per cent of staff who are covered by a union in CSIRO are covered by the staff association. There are a number of other unions that cover tens of people across the organisation.

Senator COLBECK: That is fine. I am trying to get a sense of the representations in these different groups. I am aware of a number of poll results that are going around, particularly some on the CSIRO bargaining blog, that consistently have delivered some poor results about respondents' opinions of the executive, including one at the moment that has over 94 per cent of respondents saying they do not trust the CSIRO executive team to make the right decisions to deliver Australia's best science. How do those sorts of polls—

Mr Roy: Senator, CSIRO does not run those polls. They are run by—

Senator COLBECK: I understand they are a blog. I am just trying to get a sense of how you react to those sorts of things that are obviously running around within the system.

Dr Clark: Senator, I think the best indication, as Craig Roy has outlined, is the 79 per cent agreement by the staff association members for the agreement.

Senator COLBECK: I am not talking specifically about the employment agreement now. I am talking about delivering the best science. We have dealt with the employment agreement stuff. I appreciate the information that you have put on the record there. What I am talking about is on the bargaining blog, so there is a connection from the previous conversation that we have had. On that blog there is a poll that says over 94 per cent of respondents say they do not trust the CSIRO executive team to make the right decisions to deliver Australia's best science. Where do those sorts of things sit in the overall discussion that you have and what credence do you give to them?

Senator Carr: I will just make this observation, Senator. People have all sorts of opinions; that is the nature of the game we are in. I do not have access to the site. I do not believe the agency has access to the site. We do not know the validity of the claims you are

making. But so what? If people in a union discussion blog say things about the management, why should that surprise you?

Senator COLBECK: A minute ago you were trying to tell me that 79 per cent of the group have—

Senator Carr: Look—

Senator COLBECK: You are happy to take them when they are good for you but—

Senator Carr: Look—

Senator COLBECK: I am just trying to get at how—

Senator Carr: I will put a view to you, Senator.

Senator COLBECK: do management assess it. That is all I am asking about.

Senator Carr: I will put a view to you.

Senator COLBECK: I am not trying to express a view as to its validity or not. So I am not going there.

Senator Carr: I will put a view to you.

Senator COLBECK: I am asking how the management—

Senator Carr: The government has confidence in the management of CSIRO. The government has confidence in their competence, their effectiveness and their ability to run the organisation as we would expect.

Senator CAMERON: They do good science.

Senator Carr: There is no question that CSIRO is amongst the world leaders in regard to its authority when it comes to public science. That is the basis on which I have confidence. If there are views expressed within a union website from individuals, so be it. That is the nature of the process. I am always fascinated by Liberal politicians quoting union websites.

Senator COLBECK: It is not a union website I am quoting. I am talking about a CSIRO bargaining blog.

Senator Carr: What else do you call it?

Senator COLBECK: You are the one—

Senator Carr: What else do you call it?

Senator COLBECK: It is a blog.

Senator Carr: It is an opinion. So be it.

Mr Roy: I may be able to assist with a little bit more information, Senator. We are aware of the blog. I would say that we do have very good relationships with our staff association. We meet with them regularly. I have not seen the exact number of respondents to the particular survey that you are referring to but—

Senator COLBECK: That, again, is part of the previous conversation and is important.

Mr Roy: If it is representative of others then it represents between one and two per cent of our staff. It is very small. It is a limited number of people who subscribe to that particular blog. It is rare that more than 100 respondents come for any particular survey.

Senator COLBECK: Thank you very much.

Senator CAMERON: It is—

Senator COLBECK: It is actually getting the information on the table, which is what I was trying to do. All the defensive mechanism that floats around it makes you think otherwise. When you get the right information, it is very helpful. Thank you. Have any staff from CSIRO contributed to the government's Climate Commission report that was released last week?

Dr Clark: Yes, Senator. I will call Dr Johnson to the table. He can outline the depth of our contribution to that report.

Dr Johnson: Yes, CSIRO staff have contributed to that report.

Senator COLBECK: Can you tell me how many staff were involved in that process?

Dr Johnson: I cannot tell you the exact number of staff but, I do know that staff in a number of our research divisions were consulted on elements around the climate science dimensions of that report. One of our staff is also a member of the scientific advisory council that advises the Climate Commission.

Senator COLBECK: Which divisions?

Dr Johnson: Predominantly from our Division of Marine and Atmospheric Research but also from our Division of Land and Water. They would be the two prime areas.

Senator COLBECK: You had one who was a member of the assessment panel?

Dr Johnson: The Climate Commission has a scientific advisory committee which contains a number of Australia's leading climate scientists. Dr Helen Cleugh, who is the deputy chief of our Division of Marine and Atmospheric Research, has been involved in that process.

Senator COLBECK: So you do not know specifically who, out of those two divisions, was involved in the—

Dr Johnson: I do not have the names in front of me, Senator, although I do know that across the key areas that the report covered from a climate science perspective our scientists who had expertise in those areas were consulted.

Senator CAMERON: A good report. You have done a good job.

Senator COLBECK: If you could provide for me on notice—

Dr Johnson: I would be happy to do that.

Senator COLBECK: the details of who they were and also their background and qualifications in climate science, please. Do you know how much time would have been spent collectively on that work?

Dr Johnson: No, I do not, Senator.

Senator COLBECK: Were the reviewers paid as part of that process or were they seconded in their normal roles as employees of CSIRO?

Dr Johnson: They were not paid. As you know, within science, peer review and seeking comment from your colleagues is a normal part of the scientific process. They, like many other climate scientists in the country, undertook to provide expertise and critical comment on the paper, as they would as part of their normal activities as scientists.

Senator COLBECK: So they were there to provide both input and peer review?

Dr Johnson: They were asked to provide input in terms of reviewing the draft of the report, and also, wherever possible, wherever we had published scientific material we made that available to the commission to use in the formulation of the report.

Senator COLBECK: Were those particular officers involved in compiling and preparing that information? How would that process have worked?

Dr Johnson: The process would have worked in two ways. Firstly, we would have made available, as I said, all of our published material and pointed the commission to material that we have published on the internet. Again, that is a normal, routine process. The second part of it would have been those scientists receiving a draft of the report and being asked to provide comment where it related to their areas of expertise.

Senator COLBECK: Could you give me a sense of the volume of material that would have been published by CSIRO in the last four years on climate science?

Dr Johnson: I could not. I could say that it is very large. We endeavour, as you know, wherever possible, to make the material we do publish on climate science accessible to the public. As you know, if you have looked at the CSIRO website, there is an extensive section there which points to the work that we have published. As you know also, in the last three years we have published three major documents that have detailed our latest science on climate science and climate change, a 32-page document that was presented here in the parliament, a six-page snapshot last March, and then in April a book which was launched by our chief executive at the greenhouse conference in Cairns. Those three documents, in many ways, provide an excellent synthesis of not only our own science but the science of organisations that we partner with, like the Bureau of Meteorology, for example.

Senator COLBECK: You said that where possible you make it available. What proportion of the documentation would not make it to the public arena?

Dr Johnson: I meant we make it available in terms of everything that we produce being publicly available. It is just that some things we may highlight—for example, on our webpage there are signature documents like the *Climate snapshot* or the climate book. Obviously, everything we publish in the peer reviewed literature is in the public domain and accessible to anyone in the public. I wanted to make sure that was clear. We certainly do not withhold any of our science.

Senator COLBECK: Have you compiled a full list of publications on any particular topic?

Dr Johnson: I do not believe we have formally compiled a list. If that was something that would be of interest to you, we could certainly do our best to assemble that, if that is where you are heading.

Senator COLBECK: We would like, on notice, a list of publications and papers on that particular matter since the end of 2007.

Dr Johnson: Maybe, when that question does come, it is a very large body of work by many hundreds of scientists over a long period of time. So if there were some specific elements—

Senator COLBECK: I am conscious of not creating too huge a bag of worms.

Dr Johnson: It could be a significant amount of work there. If there are specific areas that you are interested in, if you could give us that guidance, that would be appreciated.

Senator COLBECK: Okay. I detect that you have been given some guidance now. I will give you a moment to get it.

Dr Johnson: I have just had some advice from Dr Steele that it is likely to be in the order of 1,200 papers over the last four or five years. It would be a significant effort to do that, Senator. I reiterate that if there are some specific dimensions that you would like some visibility on, I would be happy to do that.

Senator COLBECK: I am sure we are being observed and can define that. I hope we are.

Dr Clark: I would direct you to the recent climate book which was a compilation of the peer reviewed science. Each chapter at the back has the references that relate to that chapter. That would be a very good place to start.

Senator COLBECK: Thank you. Has the government asked CSIRO to develop any modelling, research or formal analysis of any other kind to report to it on its carbon tax?

Dr Clark: We have not been doing modelling on the different market mechanisms for pricing of carbon. We have provided input for the Garnaut report on the potential for cost reduction in wave technologies for carbon capture and storage, solar thermal, geothermal, and also we have looked at the technology market in general.

Senator COLBECK: So you have not done any work on potential impacts of the tax on any particular sectoral elements of the economy?

Dr Clark: Yes, we have looked at the impact of pricing on the transport sector. We have also looked at the electricity sector. We have ongoing work looking at the integration of water, energy, carbon and land use, which is underway.

Senator COLBECK: You might have actually published one on land use last week, from my recollection. Last Thursday, one came out.

Dr Clark: That is right. We published something on the 20th looking at some of the land use options for forestry.

Senator COLBECK: Yes, that is the one I was referring to. It was the subject of another committee that I am involved with.

Dr Clark: Dr Keating is here and can answer questions on that.

Senator COLBECK: Okay, I will come to that in a second. Have you done anything on the impact on manufacturing?

Dr Clark: Not to my knowledge, Senator.

Senator COLBECK: Dr Keating, I think you were going to give us some—

Dr Keating: Yes, Senator. You are correct. We did put out a report last week summarising our recent work on the role for carbon forestry as a land use, and how it might interact with a price on carbon of some sort.

Senator COLBECK: I have to admit I have not had a chance to read it yet. I was too busy dealing with finalising the report itself. It is something that I am specifically interested in. I do not think it is worth going into too much of it now. A lot of the impact, I think, will depend on where the price is at any particular point in time as to what the impacts might be.

Dr Keating: Certainly, price is one factor—of course, the biophysical suitability of the land, the water, the climate. The report also makes it pretty clear that a lot of very specific, business-specific, farm-specific factors are going to come into play. A decision to change land use from agriculture to trees, for instance, is a very big decision. It is unlikely to be happening very rapidly. The report explores those issues. As well, the report flags that this is unlikely to be a horizon-to-horizon land use change. There may well be situations where small parts of farms can go into carbon forestry and be complementary to other agricultural activities. There are a complex set of issues there. Certainly, that is a direction in which we are taking the research, particularly as to how carbon forestry can be complementary to other agricultural land uses.

Senator COLBECK: I agree that it has huge potential. I look forward to looking at the report. The mechanisms to actually make sure that it works are the challenging ones. Is CSIRO management of the view that the science is completely settled on climate change?

Dr Clark: We have consistently stated that there is 90 per cent agreement, not just among our scientists but around the world, on climate change being caused by the emissions related to human activity. We have an ongoing program in our climate science observation. There is ongoing science and we will continue to look at all aspects of that science.

Senator COLBECK: Mr Spash, I think, found himself a little bit in exile for proposing a carbon tax a couple of years ago. It is probably a question for the minister more than for you, Dr Clark. The description of his difficulties comes around his preference for a carbon tax rather than an ETS. I note that you are a bit confused as to what we are actually having, based on some comments in the media recently.

Senator Carr: No, I am not confused at all.

Senator COLBECK: Is he welcomed back from exile?

Senator Carr: No, it was never about his opinion. It was never about that. The issue was about quality assurance. It was never a question of any political intervention. CSIRO have quality assurance measures in place which CSIRO manage themselves without my assistance. This was a case of a person that chose to publish material without the normal peer review processes. As it turned out, we tabled a document. I trust you would have read it. You would have to, I am sure, agree with me that it was not up to the normal high standards that one would expect.

Senator COLBECK: I am not a reviewer—

Senator Carr: No, but you are—

Senator COLBECK: I tend not to proffer broad-scale perspectives to the—

Senator Carr: You can read.

Senator COLBECK: When you said last week:

... we do know is that any carbon plan, that is, through the ETS—

this is you on 26 May, talking about an ETS—

which we are now developing—

Senator Carr: This is me?

Senator COLBECK: Yes.

Senator Carr: Where was this comment?

Senator COLBECK: This was on the ABC *Newsradio* breakfast program on 26 May, talking to Marius Benson, I think. You said:

What we do know is that any carbon plan, that is through the ETS, which we are now developing, will involve additional support for manufacturing.

I accept what you are talking about. Is it a carbon tax or an ETS that we are developing at the moment?

Senator Carr: What we are having, as the government has outlined, is a set price on carbon, which is yet to be determined and is subject to further deliberations, and we will move quickly to a full ETS.

Senator COLBECK: That is part of the multi-party talks at the moment—the development of an ETS.

Senator Carr: It will be part of the legislation that you will get a chance to vote on. I trust that you will support it. I trust that you will not stand against the tide of history again, but perhaps I will be disappointed on that front.

Senator COLBECK: You never know. Can you give me some information about the Zero Emission House project? Do you manage a project called the Zero Emission House project?

Dr Clark: Yes, we did, in conjunction with Lend Lease and Delfin. The house was constructed on the basis of zero emissions. My understanding is that a family would live in there and we would monitor that family. I do not have the up-to-date monitoring of the zero emissions house at the moment.

Senator COLBECK: So what information have you provided in respect of reports to date on that? Is there a regular reporting time frame and process on that?

Dr Clark: There may be; I am not aware of it. I am very happy to take that on notice and provide that information.

Senator COLBECK: Okay. When did the project actually commence?

Dr Clark: I can take that on notice and provide you with the exact date. We did launch the house with our partners and I can provide you with the dates of that launch. I can also provide you with the information in terms of the ongoing monitoring.

Senator COLBECK: Can you give me some information around the specifications for the design and construction of the house, or is that commercially held?

Dr Clark: Yes, we can. Some of that information is available publicly. But if you provide the details of exactly what you require we can make it available.

Senator COLBECK: I would be interested in the specifications for the construction of the house.

Dr Clark: Certainly.

Senator COLBECK: That is a fairly specific document, I assume.

Dr Clark: I would be happy to take that on notice. Obviously we have commercial partners as well in that project, and I would certainly like to check the information that

CSIRO can provide. There may, of course, be other information that would be held by our commercial partners, but I would be happy to investigate that.

Senator COLBECK: Okay. We will move on to the Marine National Facility Future Research Vessel project. Minister, can you tell us what your involvement in that project has been to this stage?

Senator Carr: We secured the budgetary allocation for it. We have called upon CSIRO to manage the project. That is essentially where we are at. Public tenders have been let and the normal procurement processes have been undertaken.

Senator COLBECK: Where are we at with the project now?

Dr Clark: Dr Johnson is the manager of that project. The project is progressing well, including the recent tank testing of the whole design.

Dr Johnson: Thank you, Dr Clark. As Dr Clark said and as the minister indicated, we signed a contract to construct the vessel on 17 January. That process to build the vessel is now in full operation. As Dr Clark referred to, one of the critical phases in the project is actually tank testing a scale model of the design of the vessel. Obviously, it is an 89-metre vessel. We have testing underway in Europe at present, which is nearing finalisation, to assure us that the design that we have will meet the specifications that we have set. I am pleased to report that that testing is proceeding well.

Senator COLBECK: Where is that being done?

Dr Johnson: It is being done in two places: in Germany and in Austria. We are getting two sets of testing done. Those countries have the facilities to undertake the sort of testing that we need, reflecting the special requirements of this particular vessel.

Senator COLBECK: So how does that differ from the facilities that exist here in Australia?

Dr Johnson: My understanding is that the facilities here in Australia do not have the necessary technical specifications to adequately test the sort of model that we built for this vessel. We have consulted with folks here in Australia around that but, unfortunately, the testing could not be done here.

Senator COLBECK: So what are the characteristics that make this fall outside the range of capacity we have here in Australia?

Dr Johnson: I would have to take that on notice. I do not have that specific detail in front of me. I do know that the facilities that we have employed in Europe are the best in the world and will give us the greatest confidence that the design of the vessel will meet our specs.

Senator COLBECK: Going back to the minister's relationship with the process, at what stages through the process has it required ministerial sign-off?

Dr Johnson: Obviously, the decision to enter into a contract with the tenderer required approval by the CSIRO Board.

Senator COLBECK: And the tenderer is?

Dr Johnson: Teekay Marine Pty Ltd. The CSIRO Board, obviously, given the size of the contract, needed to provide oversight to that. We also provided advice to the minister around the execution of the contract.

Senator COLBECK: What about other stages through the process? Your project director is a Mr Graham Stacey?

Dr Johnson: Mr Stacey is the project technical director. The project director of the project is Ms Toni Moate, who is deputy chief, marine operations. She is based in Hobart at our marine division.

Senator COLBECK: How was Mr Stacey chosen for that role?

Dr Johnson: We ran an extensive external recruitment process for the position. Mr Stacey was one of a number of candidates that we interviewed.

Senator COLBECK: By 'external recruitment process', do you mean that you advertised for the position or did you go to an external provider and say, 'We're looking for somebody who fits these qualifications'?

Dr Johnson: We went to an external provider, given this is, again, a highly specialised role. The unique nature of this vessel requires a very extensive set of skills and we sought assistance from an external provider in that recruitment process. The recruitment process adhered to all the standard procedures and policies that CSIRO would apply to any of its recruitment processes. Mr Stacey was, as I said before, amongst a number of candidates interviewed by selection panels and was determined to be the most suitable candidate for the position.

Senator COLBECK: Does he continue in that role?

Dr Johnson: As I have said, his role is now technical director. He will be based in Singapore to supervise the technical aspects of the build of the vessel.

Senator COLBECK: So his role has changed.

Dr Johnson: Yes, his role has changed. We are now focusing his efforts very much on the technical dimensions of the build, which is where his expertise is best aligned.

Senator COLBECK: So he was initially engaged as the project director—

Dr Johnson: Correct.

Senator COLBECK: and has now changed his role to that of technical director.

Dr Johnson: Correct.

Senator COLBECK: What period of time did he serve in the role as project director?

Dr Johnson: Again, I would have to take that on notice. I do not have those dates in front of me.

Senator COLBECK: You do not know when the decision to change his role was made?

Dr Johnson: The decision to change his role was made early this year. We undertook a review of the project once we had come to an agreement with the preferred tenderer. We reviewed all our systems and processes to make sure that they were aligned for the future stages of the project. It was our view that Mr Stacey's considerable expertise in terms of the technical dimensions of the project would be best utilised by directing his capabilities into the technical dimensions of the project. Of course, in a project of this size and this complexity, there were a range of other dimensions which also needed to be attended to, hence Ms Moate has also been brought into the project to provide executive leadership.

Senator COLBECK: During the external selection process, was there a process that looked at dealing with conflicts of interest?

Dr Johnson: Yes. As you can imagine, even though the global shipping industry is large, many of the best people have worked extensively across the industry. All of the candidates declared their previous work history, and that was very transparent.

Senator COLBECK: Were they asked to complete a conflict of interest declaration as part of their employment?

Dr Johnson: Again I would have to take that on notice—whether we went through the formality of doing that. But, as I have said, all of the candidates were transparent with respect to their previous work history.

Dr Clark: We have a code of conduct which covers those items of conflict of interest. All our employees are covered by that code of conduct.

Senator COLBECK: I am sorry; I did not catch that last bit. You said that you have a code of conduct and—

Dr Clark: And it applies to all of our staff at CSIRO.

Senator COLBECK: But there is no formal declaration process as part of an employment contract?

Dr Clark: Actually, there is. In addition to the contract, we also have a process for making sure that our employees are aware of the code of conduct as well. So it is in addition to the contract requirements.

Dr Johnson: I have just been advised by one of my colleagues that it would be routine for any employee to sign a conflict of interest declaration when they commence employment with CSIRO. Again, I would just have to double-check that that did occur with Mr Stacey, but I would be very surprised if it did not.

Senator COLBECK: Okay. It is fine if you take that on notice. Was Mr Stacey in his project director's role when the contract with TK was let, or did he change his role afterwards?

Dr Johnson: His role changed after the contract was let with Teekay.

Senator COLBECK: His declaration would have shown that he was previously an employee with Teekay?

Dr Johnson: We were well aware of his previous employment with Teekay and we went to great lengths to manage any perceived or real conflicts of interest from all the participants who were involved in the procurement process. As you probably know, the procurement process was under very close scrutiny by our probity advisers and by the Australian Government Solicitor. Before the CSIRO Board and the minister signed off on the letting of the contract, we required the assurance to be given by our probity advisers and the AGS that we had met all our obligations with respect to probity for the procurement process.

Senator COLBECK: So how many companies were involved in the contract process? What was the process that you went through on the procurement to actually get to your final tenderer?

Dr Johnson: At a high level, I can give you a synopsis. Obviously, there is great richness here, but we obviously requested calls for expressions of interest in the public, as we would routinely. We then went through a process of short-listing candidates for further discussion. Again, I would to have take on notice the exact number, but that process eliminated—a colleague has just advised me that you did ask this question on notice and I think we have provided the answer previously. This was a question on notice from an estimates hearing on 23 February. I am happy to go over that again, if you would like, or perhaps I could refer you back to that one.

Senator COLBECK: I will go back over that; that is fine. Thank you for that. I need you to be pretty specific about this: is it also true that details of Mr Stacey's past association with Teekay that had previously been made available on the CSIRO website were deleted from the website shortly after the final decision was made?

Dr Johnson: I have no knowledge of that. I would, again, have to take that on notice. I have no knowledge of that.

Senator COLBECK: Let us look at it from a slightly different perspective. Was any detail about Mr Stacey's association with Teekay posted on the website at any time?

Dr Johnson: Again, I would have to take that on notice. It is well known in the industry. As I said before, it is a small industry. Graham Stacey is well known as a highly talented and senior engineer in the marine industry. His previous work history in the companies in which he had undertaken project work before would be well known in the industry. I think where you are going with this is questions around the probity of the process. As I said before, there was a very extensive, transparent and quality assured process around the probity of this procurement. We stand by the outcome that we have. The probity of that process has been quality assured by the Australian Government Solicitor.

Senator COLBECK: I am just trying to assure myself of that process.

Dr Johnson: Sure.

Senator COLBECK: I spent 25 years tendering for contracts and I know how the rumour mill works.

Dr Johnson: Sure. We recognised, as I said before, Mr Stacey's previous work history and, in the design of the procurement process, we took great pains to make sure that we appropriately reflected that during the process. That process was verified by the AGS.

Senator COLBECK: If you could provide me with that data on notice, that would be very helpful.

Dr Johnson: We are happy to.

Senator COLBECK: I now want to go to a letter written by Dr Prosser, your Science Director at Water for a Healthy Country Flagship, to the Murray-Darling Basin Authority on 17 December 2010. Obviously you are familiar with that.

Dr Johnson: Very.

Senator COLBECK: In his letter Dr Prosser said that he would be very happy to work constructively with the authority to further discuss issues and to assist the authority in revising the technical work. Has there been a response to that letter and, if so, what was said in that response?

Dr Johnson: To the best of my knowledge, there has been no formal response in writing to the letter. Certainly, the Murray-Darling Basin Authority contacted us post Dr Prosser's letter being sent to them and being posted on their website. Since that letter was tendered and made publicly available, there have been extensive discussions between the authority and CSIRO scientists in our water business as to how CSIRO may be able to assist the authority to address some of the deficiencies that we pointed out in our submission.

Senator COLBECK: So the offer that has been made to assist has actually been taken up?

Dr Johnson: Certainly, we are in ongoing discussions with the authority as to how best we may be able to provide our expertise to support the plan and the process therein.

Senator COLBECK: Are you aware of any specific action that has been taken to deal with the particular issues that have been raised?

Dr Johnson: There has certainly been detailed conversation at officer to officer level. As I said before, that conversation is ongoing. It is embedded with a much wider conversation that the basin authority is having with all its stakeholders around the next steps in the process.

Senator COLBECK: So you are not aware of any corrections that have been made to the online versions of the guide based on your advice to—

Dr Johnson: Not to my knowledge, Senator.

Senator COLBECK: We will move on to the automotive transport area. Can you give me more details about the automotive transport area within the agency?

Dr Clark: We would be very happy to provide that. Would you like an overview?

Senator COLBECK: Just give me a quick overview but also the number of employees or permanently contracted people who are working in there.

Dr Clark: Certainly. As to the areas that we cover and focus on in that industry, we are looking at the electric vehicle, a hybrid vehicle, a drive train area and light-weighting for the automotive industry. We have also looked at polymer coatings et cetera. So we have quite a broad range of activities that relate to the automotive industry.

Senator COLBECK: Does anyone from that area have a place on the minister's industry innovation council?

Dr Clark: I do.

Senator COLBECK: What about the automotive task forces that are involved as well? What connections are there between CSIRO and those structures that the minister has in place?

Dr Clark: Let me just check whether we can answer that now. I will just check with my colleague.

Mr Drummond: We were involved in developing the automotive technology road map for the industry sector, which had a number of other partners, including the automotive CRC and the Australian National University.

Senator Carr: CSIRO is also engaged with a number of individual companies.

Senator COLBECK: I am trying to get a sense of CSIRO's links into the particular programs. I am aware that you have a great deal of them running.

Senator Carr: Can I just explain? In general terms, what I am trying to do is to ensure that our research agencies are involved in the innovation councils and are involved in the research groups that are undertaken—the various task forces that we have—and that, furthermore, action is taken to commercialise research by engagement with individual companies. For instance, in Adelaide recently, we were at SMR, which is a company that makes mirrors. CSIRO has got an engagement there, as has the University of South Australia and the auto CRC. So it is that interface at a practical level that we are trying to achieve, and I believe there has been substantial progress in reaching that objective.

CHAIR: Senator Colbeck, do you have many more questions?

Senator COLBECK: Yes. Just quickly, has any of that work been reflected in any of the design or delivery aspects of the Green Car Innovation Fund?

Mr Drummond: We have certainly been involved in conversations with a lot of companies about how they may be able to access the Green Car Innovation Fund to develop new technologies for the automotive industry in Australia.

CHAIR: Thank you, Senator Colbeck. I will come back to you if we have enough time available.

Senator MILNE: I have a number of questions. The minister was just talking about the commercialisation of some of the technologies that CSIRO has been involved in developing. I understand that ultrabattery in the energy transformed area was sold to the US, and CSIRO was to get royalties from that. Can you explain to me where we are up to with the ultrabattery, whether we have received any royalties and what the position is?

Dr Clark: I can. We license that technology and we license it over geographic areas and markets. We have a licence with a US company, but we also have licences over the Japanese market and potentially some licences into Asia. We also have a licensing opportunity in this country. We do not, if you like, sell the technology; we enter into agreements with the globally most suitable partner to do that. In terms of the development of the project, we have certainly done testing, 100,000-hour testing, on an ultrabattery for vehicles. We have also produced a large ultrabattery for storage of renewable energy, such as wind. We are also working in the Japanese and Asian markets on a version of the battery for motorcycles and smaller vehicles.

Senator MILNE: What income have we earned from these licence arrangements to date on the ultrabattery?

Dr Clark: We are still a long way from full commercialisation. As you can imagine, with batteries, there is safety testing, testing in different markets and an evaluation of that. In terms of where we are at on that road map, we have produced test batteries that are suitable for automotive and renewable energy and are in the process of testing those, and our partners are looking at potential markets and potential scaling up of that technology. We can certainly provide some details of the time lines on those road maps in different markets.

Senator MILNE: To follow up on that, you said that you have already entered into license agreements for the US as one and Japan as another. What about collaboration with car manufacturers here in Australia to utilise that technology in the manufacture of vehicles here, or will we see the technology come back via Japan?

Dr Clark: We have not progressed a licence for the Australian region, but we certainly would be available to do that. Our other license players, in terms of producing the battery, will then sell into the car sector and the manufacturers themselves. So we would be looking for those partners to enter into agreements with the car manufacturers themselves.

Senator MILNE: Perhaps we can just move on to the batteries to supplement renewables—so storage capacity for renewables. I hear what you say about testing the extent to which that can be scaled up, but what are you thinking in terms of a reasonable level of storage? What is the scale that you think it is achievable at and the time frame for that?

Dr Clark: I can provide those technical details on notice. Certainly, the large-scale ultrabattery for use in renewables has market potential, and we have been testing it. Its advantage in the market is its lower cost compared to other potential options. We see that as having potential, particularly in the wind market. But we are still exploring those options. In terms of your question on the technical specifications, we can provide those.

Senator MILNE: Thank you. I want to ask about an issue which is worrying a lot of people working in rural and regional Australia; that is, the intersect between the climate crisis, the food crisis, the energy crisis and the water crisis. I understand that there has been some thinking at CSIRO about how to integrate. Obviously, you have work going in all of these areas across different programs; but what about integration of those so that we get some internally consistent policy development that does not lead to perverse outcomes—because we are seeing pressure on all of these, which potentially could have adverse impacts on the others, unless they are considered holistically? Dr Clark, I wonder whether you could comment on how CSIRO intends to respond or is already responding to that.

Dr Clark: We also feel that our expertise across a number of sectors can come together to look at the trade-offs, the intersection and the scenarios into future options that Australia is faced with. We are looking to do that in our Integrated Carbon Pathways project and we are talking to collaborators and stakeholders around such a project. We think that kind of picture for the nation is important. It would also bring together the intersections, trade-offs and options in water, energy and land use, and also our choices in the urban system. CSIRO is particularly well placed, given our integrated flagship programs in the water space, in our energy transformed and in the work that we do in urban systems, and even in climate adaptation, to bring that together. We certainly stand ready to do that and we would be certainly willing to talk to stakeholders to do that work for the nation.

Senator MILNE: So CSIRO stands ready to do that work, is able to do that work and is ready to take direction from stakeholders. That is, I suppose, what I come to next. What you are saying is that that is not an active program for you, because you do not have funding to do that or you have no direction to do that. What is the impediment here to actually getting on to do that? I ask in particular because I saw recently that Qantas, Virgin and Caltex have signed up to look at biofuel—the potential which could come from plant oils. This is precisely the point I was making about perverse outcomes and conflicts across these areas. What would it take, Dr Clark, to get this work underway? With the carbon farming initiative, with these kinds of biofuel pressures, the pressure for biomass and the pressure for food production, we really are in this struggle over what is our land use future.

Dr Clark: We have commenced that work on a small scale. We would need to involve other players across the nation in a major project, and we would certainly be open to do that.

In terms of your question on the biofuels, with the recently released report, which was *Flight Path to Sustainable Aviation*, one of the requirements and objectives of that work was to look at sustainable options and non-food options, which was the basis of that report, and certainly one that was important for the industry. They only looked at sustainable inputs into potential biofuels options and ran those scenarios. That is something that I think is very relevant. But that particular report, as I said, looked at non-food options.

Senator MILNE: Nevertheless, with non-food options you still need to grow the trees for the nuts or whatever you are going to use in that context—or palm oil or whatever else.

Dr Clark: That report in particular excluded the view of palm oil—

Senator MILNE: Good.

Dr Clark: Given that it is not something that Australia is well suited to. But it did look at pulp wood and forest residues, crop stubble and waste material from the sugarcane industry, as well as urban waste. It looked at biologically derived oils as well.

Senator MILNE: In relation to your collaborative work in the CRC programs, I am concerned to see that we have the plant sciences and the feral animals up for consideration in the current round of CRCs. In the event that they do not get funded, what implication does that have for this research across the country?

Mr Whelan: CSIRO is a significant participant in the CRC program. If those particular CRCs did not receive funding and CSIRO were conducting a body of research as part of those programs, we would look at how we would potentially continue that research ourselves. CSIRO generally only participants in CRCs where the outcomes of the CRC programs are aligned with our priorities. The CRC program definitely provides additional funding—not just the Commonwealth contribution but by the way it also brings industry and other stakeholders to bear on those research programs. So we would have to reflect on that if that came to pass. Our participation in CRCs is indicative of those research areas being a priority for CSIRO.

Senator MILNE: Just on one of these research areas that I am very interested in particularly—because there is some degree of expectation in rural and regional Australia that soil carbon will be able to provide some kind of improvement in productivity but also some financial benefit to farmers in the future—I understand that CSIRO was charged a while ago with actually getting on with researching the methodologies in this area. I wonder whether you can update the committee as to where you are up to with that assessment of the likelihood of having a methodology for consideration by the offsets integrity commission.

Dr Clark: Certainly. Dr Keating is the expert that can provide that update.

Dr Keating: You are correct: there is a thing called the national soil carbon program that is funded through the Department of Agriculture, Fisheries and Forestry with CSIRO leading it but with universities and state departments around the country involved. That program is about two-thirds of the way through its current research program. It is on track and going very well. It is generating a major baseline soil carbon understanding for Australia. I heard last week that they are sampling almost 4,000 sites around Australia—3,818, to be precise. There are 15,000 samples being collected. They are moving through laboratories around the country at the moment, as we speak, setting that baseline and evaluating the extent to which management and land use, as well as climate and soil factors, can influence soil carbon. As you inferred, Senator, we are also interested in whether we can develop methodologies that

can speed up soil carbon assessment for future carbon farming related programs. Other than saying that it is a massive program—probably the biggest single soil carbon investigation ever taken on in this country—that it is going well and that it is two-thirds of the way through, I think there is probably not much more that I can say at this point on where the specific opportunities will grow out of it.

Senator MILNE: So you cannot update us with preliminary findings, if you are two-thirds of the way through, or is the analysis going to come in the last third?

Dr Keating: As you can imagine, the soil sampling exercise in itself is a major logistical exercise. The teams have had to deal with the vagaries of weather, like the rest of rural Australia, over the last 12 months and there have been a lot of vehicles bogged and so on around the country getting those 4,000 sites sampled. The laboratories are flat out at the moment. It is just a bit early, I think, to say too much specifically about what will come out from that, other than that it will provide a fantastic baseline and a great investment for Australia. I need to add that not every question will be answered on soil carbon in three years for a country as vast as Australia. So there will need to be continuing scientific investigations in this area, and certainly CSIRO intends to remain focused on this area for some time.

Senator MILNE: But we need to know when we can have a methodology.

CHAIR: Senator—

Senator MILNE: I understand, Chair, but this is critical.

CHAIR: Senator Joyce has been waiting and we now have quite a long list of people. I will go to Senator Joyce and we will come back to this, if we need to.

Senator JOYCE: Has CSIRO been asked for advice from the Murray-Darling Basin Authority on its apparent change in scientific models from an end of system flows model to an assets and functions model?

Dr Johnson: As I indicated in an earlier answer to Senator Colbeck, we have been in discussions with officials from the authority post our public submission to the technical addendum to the guide that was published some time ago. We continue to be in discussions with the authority as to how best our science can contribute to the ongoing process in the basin.

Senator JOYCE: What is your view of an assets and functions model? What exactly does that mean to you?

Dr Johnson: I am not a hydrologist so, again, I would have to take that question on notice if there is a specific dimension to that that you wanted to talk through.

Senator JOYCE: The MDBA advised the Senate last week that it has received further advice from CSIRO on the appropriateness of incorporating climate change effects over short-term periods, in particular describing a 10 per cent reduction in service water availability for the next 10 years, as the MDBA had in the draft, as not appropriate. Can CSIRO explain why it is not appropriate?

Dr Johnson: Again, I am not an expert in that area. I would be happy to refer you to our detailed submission to the MDBA, which was published on their website on 23 February. In that our climate scientists and our climate hydrometeorological scientists outlined their concerns with respect to the methodologies that the basin authority had used to generate its

assumptions around climate change and its impact on rainfall and run-off in the Basin. Those comments are on the public record. Again, if you are after a really detailed view on that, I direct you there.

Senator JOYCE: I will be able to get these answers off there?

Dr Johnson: It is on the Murray-Darling Basin's website. I do not have the submission here in front of me but it is quite a lengthy and detailed submission.

Senator JOYCE: The answer to my question is that the question is already answered and on the website.

Dr Johnson: Correct, as I understand your question.

Senator JOYCE: The MDBA has said that there has been no climate signal in the last 114 years of historical records of rainfall in the Murray-Darling Basin. Is that consistent with the CSIRO's view?

Dr Johnson: I am unaware of that comment, Senator. I would have to—

Senator JOYCE: I have just made you aware of it.

Dr Johnson: Can you repeat it?

Senator JOYCE: The MDBA also said that in their view there was no climate signal in the 114 year historical record of rainfall in the Murray-Darling Basin. Is this consistent with the CSIRO's view?

Dr Johnson: Again, our comments on climate change in the Basin, particularly the south-eastern Basin, are on the public record. I would be happy to direct you to those. I do not have that detail in front of me. We have been involved in a very large initiative, particularly in the south-eastern part of the Basin for some years now, called the *South Eastern Australian Climate Initiative*.

Senator JOYCE: It is consistent or it is not consistent?

Dr Johnson: Again, I would have to take that on notice. My general reaction, Senator, here—and I am happy to stand corrected—is that it is not consistent with the science that we have had in the southern part of the Basin.

Senator JOYCE: The CSIRO made a number of strong criticisms to the guide, to the proposed Basin Plan. Do you feel that these criticisms have been dealt with by the MDBA in its development of the proposed Basin Plan?

Dr Johnson: As I indicated to Senator Colbeck earlier, we are in ongoing dialogue with the Basin Authority around those criticisms. We stand by those comments that we made. They are based on best available science and the expert opinion of our scientists. We are in discussion with the Basin Authority around how those comments will be taken on board. As you know, the Basin Authority received substantial comment from all its stakeholders around the guide, and I presume they are taking our feedback on board with a range of other feedback that it has received from stakeholders.

Senator JOYCE: Who is your chief scientist on issues pertaining to global warming and what are their qualifications?

Dr Johnson: We have a number of scientists that are involved in research related to climate change and global warming. Again, it would depend on the particular element that

you were looking after. If it was around, for example, sea level rise, it would be Dr John Church. If it was around carbon cycling, it would be Dr Mike Raupach. It would really depend on the specific nature of the climate change.

Senator JOYCE: Atmospheric science?

Dr Johnson: Atmospheric science, again it would depend on the specific nature of the area that you are interested in. We are very lucky, this country is very lucky, that we have a large number of scientists who work in this area whose reputations are of a global standard.

Senator JOYCE: I am not doubting that you do. I just want to know some of their names.

Dr Johnson: Again, if there were specific areas that you would like to—

Senator JOYCE: Atmospheric science?

Dr Johnson: Dr Helen Cleugh leads our Atmospheric Science. Their credentials are well established.

Senator JOYCE: Dr Helen Cleugh?

Dr Johnson: It would depend really on the area that you are after.

Senator JOYCE: Who is chief spokesman on it; on discussing these issues?

Dr Johnson: We encourage our scientists to speak around their science and in areas that they are qualified in. I do not think it is fair to say there is a chief spokesman. Again, depending on the nature of the expertise that our scientists have, they are encouraged to speak publicly about the results of their science.

Senator JOYCE: Is there any correspondence between the government and the CSIRO on your public positioning on global warming?

Dr Johnson: I do not believe so, if I understand your question correctly. I am not sure what you are meaning by 'correspondence on our public position'.

Senator JOYCE: Dr Megan Clark, is there any correspondence between you and the government on discussions about a public position on global warming and the premises—

Dr Clark: No, there is not. We make our positions clear. Particularly with our partnership with the Bureau of Meteorology, we bring out the *State of the Nation*. We did that last year. We will do that again next year. So our summaries of our climate observations, we bring to the nation. We have just launched the *Climate change: sites and solutions for Australia*, which has a summary of our peer-reviewed science and we have an obligation to put that forward. It is not something that we need to enter into correspondence in that manner.

Senator JOYCE: Do you have any view as to what percentage of scientists throughout the world have the government's position on global warming?

Dr Clark: We have consistently come out in our reports and stated that there is a 90 per cent probability that climate change is caused by human activity. That is in nearly all of our records. Should that increase or change, we will simply state again the probability that we see. Our role is really to bring out the observations and to state the science and to state our observations and make those transparent for all stakeholders.

Senator JOYCE: If someone in the CSIRO had a different view, they would be totally entitled to ventilate that view?

Dr Clark: As I think Dr Johnson has adequately outlined, we have a very clear internal process for peer review. The reviewers are around the world. We follow the known practice of review of our science, both with internal and external experts.

Senator JOYCE: They would be totally entitled to espouse a different view if they had it?

Dr Clark: In terms of CSIRO, provided that our science meets our integrity guidelines and the quality of the science is there and it meets peer review, it would certainly be available. All science is simply based on very good observation of, validation of and verification of scientific method and discussion of those results. All of our work adheres to that simple process.

Senator JOYCE: Peer-reviewed by whom? By other people of the same view?

Dr Clark: As Dr Johnson outlined, the choice for peer review is often done by the editors of the journals. It is not something that is controlled by the scientists in terms of journal publication. In terms of our internal review prior to submission to a journal, we also have our scientists, who are relevant, look at that. But in terms of the process of peer review, it is done by the journals, not by the organisation.

Senator JOYCE: How much of your funding goes or does any funding go towards investigation of any contrarian views to balance up and strengthen your position on global warming? Have you had any investigations that have wanted to delve deeper into the issue of whether there is another view to this issue?

Dr Clark: I think you do not represent the breadth and depth of our science. We are there simply to make the observations in a scientific manner. Dr Johnson certainly can outline the breadth of that. It covers the atmospheric realm, the marine realm. We look at the land and we look at the run-off. Our role is simply to make the observations in a scientific manner, with integrity. We simply report the observations.

Senator JOYCE: On the basis of 'with integrity', have you ever changed any of your views on any of these issues? Have they changed, evolved at all? Have the views you had at the start been the same all the way through?

Dr Clark: From my personal point of view?

Senator JOYCE: Yes.

Dr Clark: Or the organisation?

Senator JOYCE: For the organisation, with regards to CSIRO? Are the positions that they formerly held exactly the same as the positions that they currently hold?

Dr Clark: Science simply evolves. As our observations increase and we have further evidence, we simply report that evidence. It often goes to further validation.

Dr Johnson: Absolutely. That is the very nature of science, Senator Joyce. As Dr Clark indicated, the views that we express are based on our observations of phenomena in the natural world. As the frequency of our observations change or new data comes to light, we report those observations faithfully.

Senator JOYCE: In search for new data, do you feel that there is the capacity for you to be in, whatever you want to call it, the scientific marketplace for data from all sources, from variant forms, to take that information in and to critically analyse it without fear or favour of either side of an argument that is currently going on?

Dr Clark: Absolutely, Senator. We would not be adhering to the scientific method if we did not do just as you outlined.

Senator JOYCE: I am glad to hear that.

CHAIR: Last question, Senator Joyce.

Senator JOYCE: Can the CSIRO provide an update of the work they are doing on coal seam gas?

Office of the Chief Scientist

[13:46]

CHAIR: We welcome Professor Chubb to his first appearance here at estimates and congratulate him on his appointment to the position.

Prof. Chubb: Thank you.

CHAIR: Do you have an opening statement you would like to make?

Prof. Chubb: I can only say that I am five and a half days into this job, so I am somewhere down at the bottom end of a steep learning curve.

CHAIR: I am sure you will do well.

Senator COLBECK: Welcome, Professor Chubb. We are going to talk around you a little bit. I apologise for that. I just want to ask a few questions about your predecessor to start with before we start having a chat to you, if that is okay. I congratulate you on your appointment.

Prof. Chubb: Thank you.

Senator COLBECK: I look forward to interacting over coming estimates. Minister, on how many occasions did you formally meet with Professor Sackett during her time as Chief Scientist?

Senator Carr: She was there for two and a half years, so I would have to take that on notice. But I can say that between February 2010 and February 2011 there were 14 occasions where we had formal briefings and meetings. There were many others on top of that. The arrangement was that we would have a monthly meeting and meetings as required on top of that. My recollection is that when she was overseas or something like that the meetings did not occur. Other than that I think we met on that monthly schedule.

Senator COLBECK: So you met with Professor Sackett every month?

Senator Carr: We had a regular session once a month, a formal process, in which briefings and the like were exchanged.

Senator COLBECK: I have received an answer to a question on notice that talks about meeting in your office, but it does not clarify to me whether that was a meeting with your office or a meeting with you personally. That was the distinction I was going to.

Senator Carr: There were additional meetings on top of that. My remarks do not go to phone calls or informal meetings. I met with her on one occasion, for instance, at the airport. My remarks do not go to the discussions that took place with other members of my office.

Senator COLBECK: So each of those monthly meetings was a formally organised meeting that was part of the schedule.

Senator Carr: Yes. I do not think I need to take this on notice. It was essentially the same pattern in the other years as well. I have the dates in front of me at the moment. It was the same pattern throughout the term of her contract.

Senator COLBECK: So that time frame that you are referring extends to what?

Senator Carr: From the time of her appointment until the point at which she formally resigned we had a regular schedule of meetings. Where the Chief Scientist was overseas or something of that type they did not occur; otherwise there was a regular pattern.

Senator COLBECK: I am just referring to some information that we have had through FOI that indicated that you had seven meetings with Professor Sackett in the first seven months, which would align with what you have just told us. You had 13 meetings with her in the first nine months, but there was just one phone call between the two of you in the last nine months.

Senator Carr: I have read the report in the *Canberra Times*. I just draw to your attention that the statement given to the *Canberra Times* was that those records were wrong. The journalist chose to publish the report irrespective of the comments that were made to her. I am really at a loss to explain that.

Senator COLBECK: So the alleged FOI document—

Senator Carr: The journalist based it on a claim that that is what the diary records show. What I can say to you is that I personally met with the Chief Scientist on numerous occasions during the nine months that it is alleged that we only had a telephone call.

Senator COLBECK: But you do not have the details of that with you now.

Senator Carr: I can say to you that on 9 February there was a monthly meeting. On 10 February there was Senate estimates. On 15 March there was pre-PMSEIC briefing and a monthly catch-up. On 18 March there was a PMSEIC meeting. On 12 May there was a monthly meeting with the Chief Scientist. On 26 May there was a pre Senate estimates briefing. On 31 May there was Senate estimates. On 30 September there was a monthly meeting. On 20 October there was Senate estimates. On 25 November there was a monthly meeting. On 4 February there was a pre-PMSEIC briefing. On 4 February there was PMSEIC itself. On 15 February there was a meeting and on 23 February there was Senate estimates. That is what my records show. It is unfortunate that the journalist chose to ignore the advice that was given to them. I must say it is not unusual for that journalist and the *Canberra Times*.

Senator COLBECK: Who advised Professor Sackett that she was not going to be a member of the government's delegation to Copenhagen and on what date?

Senator Carr: I do not think she was advised.

Senator COLBECK: Why was she not part of the delegation?

Senator Carr: That is another question.

Senator COLBECK: It is another question. That is why I have asked it.

Senator Carr: That is for another portfolio entirely.

Senator COLBECK: But she is the government's Chief Scientist.

Mr Paterson: The delegation was led by another portfolio, with another minister.

Senator COLBECK: I understand that it was run by Senator Wong at the time.

Mr Paterson: Correct.

Senator COLBECK: I am just curious as to why the government's Chief Scientist would not be part of a specific delegation of that nature.

Senator CAMERON: You were complaining that there were too many going last time. Make up your mind.

Senator COLBECK: This is the government's Chief Scientist. Mind you, she only met with the Prime Minister once. So she was never a part of that delegation?

Mr Paterson: I think all of those questions should rightly be put to the Climate Change portfolio.

Senator COLBECK: Okay. We will approach them. On how many occasions was Professor Sackett provided with media training during her time as Chief Scientist?

Senator Carr: I am sorry, I cannot assist you on that matter. We would have to take that on notice.

Senator COLBECK: Can you tell me the nature of that training?

Senator Carr: I cannot assist you.

Senator COLBECK: There is no-one here from the department who might be able to assist us with that?

Senator Carr: The Office of the Chief Scientist is run entirely independently of the department. I am not certain that there is anyone here who can assist us.

Mr Paterson: I understand that it was on two occasions. I think that there has been a response to a question that we may have received on this issue, but it is not something that I have any direct, personal, first-hand knowledge of, nor does the department. I believe the office may well have responded.

Senator COLBECK: The only thing that I have reference to is an FOI document which indicates that there were four occasions, three in 2009 and one in 2010, on which Professor Sackett and possibly others were provided with some formal media training.

Mr Paterson: That is why trying to be helpful in these things does not always work. We will take it notice and try to find out. We have not got a direct answer. As I said, I understood it to be two. If you have advice from somebody else that it is four then you ought to rely on that advice. We will examine the issue. I do not know who has provided you with that answer.

Senator COLBECK: Unfortunately, I do not have the actual FOI documents here in my folder.

Senator Carr: The documents were provided to Mr Jamie Briggs. You might want to approach him on the matter.

Senator COLBECK: Can you confirm it? You have obviously got some documentation there yourself, Minister.

Senator Carr: I have just got my notes here about the comments on the *Canberra Times* article, which I think I made my opinions clear on.

Senator COLBECK: I think we have got that message. I am just trying to get to—

Senator Carr: The article actually said the documents were provided to Sophie Mirabella, which is incorrect as well.

Senator COLBECK: If you are taking all this on notice, I will just put this information down on the record for you to deal with too, please. I would like to know what the nature of the training was. Was it delivered by an external provider or providers? I would like to know what the cost of it was. That will do for that. We might be coming to your recollections, Mr Paterson, in respect of whether Professor Sackett attended at least two sessions during which she was trained on how to answer questions at Senate estimates. That may be what we are talking about. What is your recollection?

Mr Paterson: That does not touch on my recollection. I can make no comment in relation to any training that might have been provided to her on Senate estimates.

Senator COLBECK: Can you take on notice, then, if that was the case and also the dates on which that might have occurred.

Mr Paterson: I am happy to take that on notice.

Senator COLBECK: I would also like to know who ran those sessions and what was covered in the training.

Mr Paterson: In saying I will take that on notice, I do not acknowledge that it has necessarily occurred at all.

Senator COLBECK: If that is the answer, that is the answer.

Senator Carr: I understand that there is already a question on notice regarding the other matters you have raised about media training. We will have to check to see whether or not that has already been answered.

Senator COLBECK: If there is a question on notice that has not been answered then the two might dovetail.

Senator Carr: It has been answered. I just want to check to see that it is not a duplication of material that has already been provided.

Senator COLBECK: If that is the answer, that is the answer, even if it is a duplication. I am sure the answer to the question on notice will reflect that. If there is any additional information over and above what might or might not be there now we will find out in due course, I presume. Has Professor Chubb been provided with any training in that respect so far?

Prof. Chubb: No.

Senator COLBECK: You have only been here for four days, so I suppose your recollection should be pretty clear on that one.

Prof. Chubb: I have a fair idea that I have not.

CHAIR: I think you would do okay!

Prof. Chubb: I have been around a bit.

Senator COLBECK: That is a good start! Is it correct that there was a whole-of-office planning day for the Chief Scientist on 14 April 2010, then a team-building day on 27 July 2010 and an executive workshop for strategic planning purposes on 10 December 2010? Have there been other, similar sessions on other dates?

Mr Paterson: We are happy to get answers to those questions later this afternoon. We do not have that detail. As the minister has already indicated, the Office of the Chief Scientist operates independently of the department, so I do not have any access to direct knowledge of activities undertaken. We can endeavour to get the answers.

Senator COLBECK: So there are no other officials here, apart from Professor Chubb, who would be able to give us that information?

Mr Paterson: There is an officer from the Office of the Chief Scientist, but I would prefer to seek to get answers to those questions and respond directly.

Senator COLBECK: We can come back to that. Is Professor Chubb, like Professor Sackett, employed under a deed? Is there any great variation in the criteria established in that deed?

Mr Paterson: Yes and no.

Senator COLBECK: Are the remuneration arrangements for Professor Chubb the same as they were for Professor Sackett?

Mr Paterson: Remuneration for the Chief Scientist is determined by the Remuneration Tribunal. It continues to be as determined by the Remuneration Tribunal.

Senator COLBECK: I will now move to Professor Chubb. As you will know, a number of different ministers of the government are currently members of PMSEIC and have science related responsibilities. Aside from PMSEIC meetings, would you be expecting to meet some or all of those ministers on a regular or semiregular basis as part of your role as Chief Scientist?

Prof. Chubb: I would expect to meet with them when I had cause to meet with them or them with me. There are science issues, as you correctly say, in a number of portfolios. I think if we are to play a role to the fullest possible extent then it would be useful. Indeed, I have already met with a couple who are talking to me about issues within their portfolio where we could add some value to what they can do internally. That is something that I would hope would continue, and as we are seen to be useful it will increase.

Senator COLBECK: Professor Sackett, when she came before us at estimates in February, indicated that she believed that the government needed to work out what it actually wanted for the role and to define the role. Do you feel that that process has been satisfactorily completed to let you know exactly what is required of you, what is needed from you, as part of your appointment?

Prof. Chubb: I think so. In discussions that I had I was primarily advised that I was expected to give advice to the Prime Minister and other ministers as required and that I could do a few things that I thought were important outside that particular approach. Science is so comprehensive and so complex that, indeed, to have a brief that says that we should have the capacity to provide advice across the breadth and depth of science is pretty defining. It does also leave you with some balancing that you will do as part of that process. So there are some things that we would spend more time on and some that we would spend less on. But I have had no brief at all that indicates that I am restricted in any way from providing advice that we believe to be appropriate to the relevant minister or the Prime Minister when we think it is appropriate to give it.

Senator COLBECK: Have you been set any benchmarks, guidelines or KPIs of any form as far as the operation of your role goes?

Prof. Chubb: Not yet, but I expect to. I have to provide an annual work plan to the minister. We are in the process now of reviewing what was on the agenda and what we would like to be on the agenda for the coming year or so. As part of that process I am sure we will both work out a work profile but also targets and KPIs and the like where they are appropriate.

Senator COLBECK: Is there a formal duty statement that comes with the role?

Prof. Chubb: Within the deed there is an outline of expectations. Included in that is a requirement that I do, on an annual basis, set out the detail, given that we are in a changing landscape, so that that detail can then be something which I can be held accountable against.

Mr Paterson: Senator, you asked a question earlier about the differences between the deed which applied to Professor Sackett and that which applies to Professor Chubb. In all material respects, the outline of activities in the deed that applied to Professor Sackett is entirely consistent with what Professor Chubb has indicated is part of the deed that he is engaged under.

Senator COLBECK: So that has not materially changed?

Mr Paterson: There is no material change. There is a significant outline of the nature of the role and responsibilities of the Office of the Chief Scientist in that deed.

Senator COLBECK: That was one of the issues that Professor Sackett indicated to the committee at the last estimates. She felt that there needed to be some definition of the role. So there is nothing in the new deed that reflects that.

Mr Paterson: No, it is quite the reverse. I am saying that there was a detailed outline in the deed under which Professor Sackett was engaged which made very clear the nature of the roles and responsibilities of the Office of the Chief Scientist. There is no material difference in that respect between the deed that applied to Professor Sackett and the deed that applies to Professor Chubb. In both cases they outline in some detail the nature and breadth of the role of Chief Scientist.

Senator COLBECK: Although there are no material changes that does not mean they are identical. What were the changes?

Mr Paterson: There might be a word different. I am not conscious, from my best recollection, that there are in fact any differences in the wording in relation to the list of activities that might be expected of the Chief Scientist. But, as I say, if there is a word here and there it is not in any way material.

Senator COLBECK: That is fine. Thank you. One of the things that became quite famous about the evidence that Professor Sackett gave us last time was the fact that there had only been one meeting with the Prime Minister. Professor Chubb, do you have any expectations about what sort of frequency there might be or the circumstances under which those sorts of meetings might be convened?

Prof. Chubb: I have been asked that a lot.

Senator COLBECK: You should have a practised answer by now.

Prof. Chubb: I have, and it is this: when I need to meet with the Prime Minister I will seek a meeting and expect to get it. I have discussed this with members of her office. That is our understanding. I would expect the Prime Minister to be able to do the same. When she wanted to or needed to meet with me, we would meet. I did also say to the media several times that I would not count my success by the number of meetings I have with the Prime Minister. It will be the positive influence we have on policy and outcomes that I believe to be the essential part of this role. Sometimes that will be through the minister to whom we formally report. Sometimes it will be through contact with the minister and sometimes with other ministers. So I have reason to believe that if I want a meeting it will be because I need a meeting and I will get a meeting.

Senator COLBECK: So it is not about a formal time frame; it is about the issues that might need to be discussed and whether you or the Prime Minister believes that there needs to be a formal discussion to deal with those.

Prof. Chubb: I believe so.

Senator COLBECK: Okay.

Senator Carr: What I do not think was clear from the press reporting of this issue is that the nature of PMSEIC is such that the Chief Scientist engages with the Prime Minister through that process as well. It is not necessarily the case that you have to have a sit down one-to-one. There are a whole series of processes that engage with the Prime Minister and engage with government. The formal reporting lines are through me.

Senator COLBECK: That is fine, thanks. I think you must be feeling a bit maligned by the media.

Senator Carr: It is not uncommon for there to be misunderstanding on these questions, particularly when you are looking for a sensationalist direction where there is none.

Senator COLBECK: Can we go to the appointment process, Minister? Given that there was no advertising or public process, could you take us through the appointment?

Senator Carr: It was a cabinet process.

Senator COLBECK: That is one way to cut off conversation.

Senator Carr: That is a statement of fact.

Senator COLBECK: I am not disputing that. Cabinet came to a decision. There would have been some advice to cabinet. I understand the rules about asking questions about that. I am just trying to get a sense of the process that was undertaken for the selection of Professor Chubb.

Senator Carr: I will ask the secretary to make some comments on that.

Senator COLBECK: I think it is a reasonable question to ask.

Senator Carr: The secretary will try to provide some assistance.

Mr Paterson: There was a process in place. It was not an advertising process. We looked at a variety of potential options that the government might consider. We had unsolicited expressions of interest from individuals. We consulted with the panel involved in previous engagements in relation to the Chief Scientist. I led the panel on the last occasion. I was certainly consulted on this occasion. We took advice and examined those who might

potentially fit the bill, if I can put it that way. We provided advice to government. That advice was taken forward in the way that the minister has outlined.

Senator COLBECK: Through a formal process?

Mr Paterson: Yes.

Senator COLBECK: Through the cabinet process, which I understand. Thank you. Professor Sackett was appointed for five years. Professor Chubb has been appointed for three. Is there any reason for the difference?

Senator Carr: I had a look at this. Basically, the Chief Scientist, from a fair way back, has served a term of about that length. The original arrangements were five years. I was perhaps a little enthusiastic when I agreed to that arrangement. As I understand it, it is a matter of discussion between Professor Chubb and the secretary as to the term of the contract.

Senator COLBECK: Professor Chubb, have you been asked to provide advice of any kind to the government's Multi-Party Climate Change Committee?

Prof. Chubb: No, not yet.

Senator COLBECK: Does that mean that there is an expectation that you might?

Prof. Chubb: No, but I might.

Senator COLBECK: You might? That is fair enough too.

Prof. Chubb: But I do not have that expectation, no.

Senator COLBECK: What about the Climate Commission?

Prof. Chubb: Do you mean have they asked me for anything? No. But they might.

Senator Carr: Can I remind you that Professor Chubb has been on the job for a week?

Prof. Chubb: Five and a half days and two hours.

Senator COLBECK: Can I say, Professor Chubb, I hope you are not counting at that level by the time we get to the next estimates. It would be a very bad signal.

Prof. Chubb: No. I am happy.

Senator COLBECK: Mr Paterson has gone beyond the call of duty to come back and do an extra estimates. I was going to come to that later. I think it is highly commendable for him to hang around to do estimates. But if you are still counting your job by the hours next time we are at estimates—

Prof. Chubb: No, I won't be.

Mr Paterson: There is no suggestion that I am not counting those hours!

Prof. Chubb: I am now about to begin a process where I go and talk to a lot of people, so I am here. A lot of these people know me; I know a lot of them. I have lived in this town for 10 years, so I am quite well known to a number of people and will need to meet others. But I do want to make it clear that as part of my job we look at the whole of science and engineering. It is important that the office be seen to be the office for science and of science, not just part of science or some of the consequences of science. I am trying to make sure that I talk to a broad range of people so that we can contribute to the science debate within this country—the whole of science—some of which will be doubtless related to climate change.

Senator COLBECK: Quite a few people were heartened by the comments that you made on the day of your appointment that you want all sides of the climate debate to be heard. I assume that I can take it from that that you agree that there are reputable and decent climate scientists on both sides of the debate?

Senator CAMERON: And sceptics.

Prof. Chubb: What I was referring to was of course proper science.

Senator COLBECK: I understand that.

Prof. Chubb: What I said was that I think properly conducted science ought to be allowed to be put on the table and discussed, along with all other science. I have also said that I think that the overwhelming majority of science is heading in one direction. Most of the chief scientists whose work I have read—but in another job, so I focused on it as a citizen rather than as somebody who would have to talk about it or work within it—say it is heading in that direction. I think we also have to get balance and civility into this debate because it is a long way off civil at the moment.

Senator COLBECK: You are exactly where I was heading with that. CSIRO said to us this morning that something like 90 per cent of the science indicates that climate change is real. That obviously means that there is some other stuff out there that does not necessarily agree with that. So, in the context of a scientist who disagreed with what might be regarded as, say, the mainstream—that 90 per cent—if their conclusions disagree with that, that does not necessarily make them not credible. That is also, unfortunately, part of the debate. I take the point you make about civility in the argument. Just because somebody does not agree with what the broader part of the argument is does not mean that they are not credible.

Senator CAMERON: Did Barnaby write that question for you?

Senator COLBECK: No. Actually, it is about the way that you are operating right now. It is about civility, Senator Cameron.

Prof. Chubb: That does not make it right either.

Senator COLBECK: I am not saying that that is the case. I am just talking about the language that is around this. I actually agree with your comment about the civility of the debate. Just because somebody does not agree does not mean that they need to be harangued.

Prof. Chubb: No, and on both sides.

Senator COLBECK: I agree.

Prof. Chubb: The issue that I have tried to draw out is the fact that if a scientist puts the evidence of the observation and argumentation on the table and it is shown to be wrong, which happens sometimes, then it should not continue to be counted as credible. Science will always progress to a higher level of certainty, not surety, through the robust debate of observation, replication, argumentation and repeating those observations. At the heart of a lot of that is the peer review process. Having got it published, it goes out to all the peers, not just the small number who review. It is important that we get science through that process on the table. It stands up to scrutiny or it does not. When it does not, it does not count anymore, whichever side it is on.

Senator COLBECK: I am highly likely to be accused of leading with my chin with this next question. Given what you have just said, in your view, would you say that the science on climate change is still evolving or that it has been established beyond any doubt?

Prof. Chubb: I think the overwhelming consensus is that it has been established. I am sure that it will be refined through continued work and observation. From what I know and what I have read and interpretations that have been drawn, it seems to me that there is an overwhelming consensus that it is happening. It will be refined. People are still working on it. People are still critiquing it. People are still trying to find alternative explanations. I cannot say forever, but I think it will not stop for a while. The consensus is in, I think.

Senator CAMERON: Uh-oh! Where do you go now?

Senator COLBECK: Mr Paterson, can you confirm the number of people still working in the Office of the Chief scientist? Fifteen or 16 is the figure that I have.

Senator CAMERON: That is called a segue.

Mr Paterson: It is in the same ballpark. There have been no staff changes made to the office since Professor Chubb's appointment. It is something that we are having a look at, but, as I understand it, the same individuals continue in those roles. It is currently an ASL of 12.6, and that, I think, is what the ASL was at the time that Professor Sackett left.

Senator COLBECK: You might have to give me this on notice. Could you give me a breakdown of those staffing levels and an outline of their roles and responsibilities.

Mr Paterson: I can give you classifications at the moment, but we would have to take an outline of the roles and responsibilities on notice.

Senator COLBECK: Okay. That is all I have on the Chief Scientist.

Prof. Chubb: Could I just add to the secretary's comment on that one? One of the things that I have asked to be done—and we are in the middle of doing it—is to look at the relationship with the department and how to get efficiencies and bring it a bit closer. I was struck by the comments that a chief scientist in another country made when he said, 'We don't write policy, but we've got to influence it.' That is his office. It does seem to me that it is important that we do work closely with the department in an appropriate way. Appropriate means that we continue to have independence, we continue to be able to do the sorts of things and make the comments that you might not expect to come from a typical department but that we do so in a way that is useful and will influence the way future policy develops for science in this country and the way that the department provides that advice. We will also provide advice, but we will not write policy. It is about getting that loop closed, which is useful to us all. That is what we are now exploring. How those numbers bear out with respect to specifically and explicitly the Office of the Chief Scientist and how we get service from the department will be something that we are working on and will have resolved before I am here again.

Senator COLBECK: Given the conversation that we had pretty much at the outset of our discussion, those sorts of links and relationships would also be important across a number of other agencies that could take advantage of your experience and knowledge and the role that you bring to the system.

Prof. Chubb: Exactly. As I said in answer to one of your questions, I do not count success by the number of meetings; I count success by the amount of influence we have on what comes out the other end. A substantial part of our success will be measured in that way. That does mean the other departments, the other ministers, and it means finding out what people are interested in, how we can respond to that, how we can advise on what they should be interested in sometimes and how to help them get there too. So I see it as really quite a broad-ranging, pretty comprehensive and really very interesting role. The servicing of some of the aspects of that will come from the department, I expect. We run a \$2.3 million budget internally. I think we can probably do that a bit differently and get economies in a way that will enable us to focus on some of the big issues but still with the support that we need.

Senator COLBECK: I know you are only four days and two hours in—

Prof. Chubb: Five days and two hours.

Senator COLBECK: You have a formal relationship, obviously, with this portfolio, because that is where it sits. But what about the relationships with some of those other portfolios that you need to deal with? Is there a structure in place? There is PMSEIC, obviously. But is there a structure in place where you can actually insert yourself? How do you see that working so that that influence can be managed, keeping across all of the things that might be going on in those other portfolios?

Prof. Chubb: A couple of meetings have been put in my diary now for secretaries of other departments. I have asked for a meeting to be set up where the science advisers, the principal ones, in other departments can convene with me so that we can find out how to make sure it is working and, if not, how to do it better. At the level of officers there is a group of people who connect into PMSEIC from various departments. The Office of the Chief Scientist will be talking to them as well to find out whether it is working and whether or not there is a better way if it is not—or what is a better way if it is not. So a number of steps are being taken to explore all of those options. For us to be useful, I think that we should be useful to a number of departments and agencies in a way that is different from what they can do themselves. It is about adding value to what can be done. We will find a good way to do that through some of those discussions that are about to start now.

Senator Carr: Could I add a comment. As far as the government are concerned, we welcome the fact that Professor Chubb is able to take on this appointment. He is a very distinguished Australian and should be able to lead a public debate about many issues of broader interest around matters of public policy. The relationship between this portfolio and the whole-of-government work is quite a complex one. It is important that the office maintain its independence within the portfolio so that we do not have the situation that it is just another division, because it is not. On the other hand, we want to make sure that there is an efficiency of operation. I really do not think that I should be signing off on Professor Chubb's leave applications or staffing arrangements because there is no line of authority through any other way to deal with it.

We have had to amend certain administrative arrangements to bring it in line with a more streamlined operation but, by the same token, protecting the independence of the office, particularly the Office of the Chief Scientist, and making sure that the Office of the Chief Scientist is available for the whole of the Commonwealth and that there is an engagement at a public level. For instance, part of the role is to provide inspiration, as I said, for people to be

engaged in science. That means an engagement with schools and with a lot of outreach work which will need to be managed as well as all the other work that is required from government from time to time. So the role is very broad. It is about trying to manage the different priorities according to what can be humanly accomplished and what 12 people—which is what we have allocated a budget for—can do.

Senator COLBECK: I understand that, Minister. While we are having this conversation I am thinking about all the elements of science that exist in other things that I look at, such as agriculture and other primary industries such as fisheries, forestry, mining, geoscience and all those sorts of things. Given Professor Chubb's concern about being able to positively influence policies across all those things, there needs to be a formal process to make sure to make sure that those interactions do occur and that the capacities and the influence are picked up as part of that process.

Prof. Chubb: And where my office can add value.

Senator COLBECK: Yes. You do not have to have your finger in every pie.

Prof. Chubb: No, and at a level of detail we will not and cannot. There are within every portfolio where it is relevant, I am sure, experts who are on top of the detail of certain matters, whether it be fisheries or water, or climate change for that matter. There are people who have worked in Australia for 35 years on climate change. They will always know more than me and they will know it at a level of detail that, unless you are like them, you will never know. So it is a question of where the Office of the Chief Scientist adds value on that detail rather than trying to understand or comprehend or argue about the specific detail. I want to take the bigger picture show. I want to be able to argue for the whole of science—the supply of science, the expertise of science, the importance of science and so on—and do two things with that. The first is not to get bogged down in details that experts and only experts can really know. The second is to separate it from policy. We do not make policy. All we can do is provide evidence that hopefully will lead to better policy having regard to that evidence. So we are trying to formulate a process that makes us aware of what is going on across the whole of government, or as far as we need to go, to be able to talk to the right people and to know where they are—I know where a lot of the right people are in the academic community but in the APS I now need to find that out—and to be able to bring that to bear on the issues that we are choosing to confront or to begin to formulate advice about. I am trying to make it clear to people out there that they should not come to us for micro-detail on substantial issues. There are experts for that who know it backwards off the top of their head, and we will not. But we can add value by taking the bigger, broader perspective, I think. It is about finding out how best to do that where it is useful to these people so they come back for more.

Senator COLBECK: Do you have a specific example of that process in mind?

Prof. Chubb: There is one example that I could give you that we are now about to start, which is to look at the whole profile of Australian science and its vulnerability. It is all very well for us to say that as a country we will use science and depend on science to help us develop an economically, socially and culturally prosperous future.

Senator COLBECK: It is a well bandied about term, 'use of good science'.

Prof. Chubb: Yes. That is what I want to do but I want to make sure that it is available to people who need it to write good policy. I need to make sure, I think, that we as a country are

aware of our strengths and our weaknesses. We need to make conscious decisions about how to support our strengths and what to do about our weaknesses—invest in them, develop them, encourage them in some way, decide that it is not something Australia can be in. Whatever the outcome is, that is somebody else's decision. We have got to say 'These are the facts.'

Senator EGGLESTON: Professor, the states also have chief scientists—and I am thinking of Western Australia. What kind of interaction is there between your office and those state offices? What kinds of projects do you cooperate on, if you do at all?

Prof. Chubb: Your chief scientist and I go back 40 years. We were young neuroscientists together and we were going to change the world that way. Now we are both obviously trying to change it in a different way. I am seeing her quite soon, individually. There is a regular forum of the chief scientists of the governments of Australia. I think it meets once a year. A meeting of that group is also being set up, because that is right: we do have to talk broadly across the whole of Australia and work out how good we are, where we are heading and what we need to do to get better.

Senator EGGLESTON: Do you have any common projects? Is there that level of cooperation, or not?

Prof. Chubb: That I could not tell you, Senator.

Senator EGGLESTON: It is still too early.

Prof. Chubb: Yes—I will find out. Six days in, I will know.

Senator EGGLESTON: I understand that. I do not expect the impossible.

Senator CAMERON: Thanks, Professor Chubb, and can I add my congratulations on your appointment.

Prof. Chubb: Thank you.

Senator CAMERON: Obviously after five days I am not going to ask you much about detail but I want to deal with some generalities, if you do not mind. I think there is an anti-science culture appearing across Australia, certainly in some influential media outlets. That would have to be a challenge for the Chief Scientist. I have read that some scientists—who are not trained in public speaking but are scientists—are concerned about putting themselves in a position where they are ridiculed and lambasted by people who do not have a scientific bone in their body. How do you feel about that?

Prof. Chubb: Sad. I grew up at a time when people were respected for having ideas and putting them out into the public domain, even by people who disagreed with them. Now all we do is get what I think to be—in many cases, not all—simply an extraordinary attack on the individual who is the messenger. It is true that my academic colleagues are not all comfortable with that. Some do go back for more. Some are—

Senator CAMERON: Masochists.

Prof. Chubb: Yes. Some are distressed by it. The disadvantage of that distress is that they will not go back out and continue to inform the public about important issues where they have really expert knowledge. My view of this whole issue is that the more we inform the public, the better the decisions they will make when they are called upon to make them or to make comment or to vote. They will have a better understanding. So I think part of the role of the Chief Scientist is to encourage the scientific community to be willing to stand up and talk

within their field of expertise—to put their detailed knowledge on the table, to have the discussion that has to be had and to roll with it, because for a while it will be pretty rough if they say something that people do not like. I think it is just very unfortunate that we have chosen over some time—as a vice chancellor I was a much freer spirit than I am now, so I could say things much more bluntly perhaps, but I used to lament frequently the fact that you see your colleagues being criticised for having a view about something but attacked personally. It seemed to me to be a pretty poor approach to information sharing in our country. It is not unique to Australia; I do not want to pretend that. I have an article here from the British chief scientist where he says what a pity it is that the media gives equal weight to all comments, even it is one every now and then that is negative—he is referring to climate change—and there is no balance in the reporting. So it is not unique to us. But I do lament it. It is not the best way to inform the public.

Senator CAMERON: It is interesting that in the UK there is a political consensus on the science and yet there is still the same issue, but maybe not to the same extent, of a challenge to the scientific basis of carbon pollution.

Prof. Chubb: Here?

Senator CAMERON: And in the UK—he is describing it in the UK.

Prof. Chubb: He makes the same point that I made. He says something like 'It's perfectly possible to look at differing views from that consensus but they should be weighted appropriately.' I do not think that is a bad statement to make. I am a scientist. I have had work of mine criticised by other scientists because I put it out there for critique and criticism. It is the way we do things. I think people should be entitled to have their work put out there for critique, but not when it is an opinionated essay about something that is not science but simply a view. The whole balance, I think, needs to be carefully understood. I guess my view is like his. You put science out there and it gets moulded, shaped, argued and repeated, and if it cannot be repeated there is a change of view and you go and do it all over again. That is the way we advance scientific knowledge to get closer to an ever higher probability that what we are talking about is certain. There is not a lot of certainty in science. We are increasing the probability of an understanding or a truth but we are not actually ever going to quite get there. But we get closer to it by taking account of what is put out there that is negative and critiquing that.

Senator CAMERON: I quoted Winston Churchill earlier. You probably were not here. I do not normally quote Winston Churchill.

Senator MASON: It is a good thing.

Senator CAMERON: It is a good thing, is it?

Senator MASON: It did not hurt too much?

Senator COLBECK: I did not note any pain in your voice at all.

Senator CAMERON: Here we go. Let me quote. You probably do not know this one. Winston Churchill said: 'Men occasionally stumble over the truth!—you guys should know about that—but most of them pick themselves up and hurry off as if nothing ever happened.'

Senator COLBECK: You said this this morning—we do remember.

Senator CAMERON: I think it is a good quote from Winston Churchill. I am wondering whether you have any knowledge of the Pontifical Academy of Sciences.

Prof. Chubb: No.

Senator CAMERON: Then you can learn something as well, Professor. You know you are not going to get away from climate change. The Pontifical Academy of Sciences has 43 Nobel-winning scientists advising the Pope in relation to scientific issues, which I found quite interesting.

Prof. Chubb: So they have 43 chief scientists.

Senator CAMERON: I might send you a copy of this and ask you some questions about it when you come back, in the context of your job. The CSIRO say that climate change is one of the greatest ecological, economic and social challenges facing us today. Do you agree with that analysis?

Prof. Chubb: I would go a long way towards that analysis, yes.

Senator CAMERON: You say you are keen to have engineering as part of your portfolio of interests. When you burn coal there is a chemical process. When you make cement there is a chemical process. When you make steel there is a chemical process—and I suppose carbon is released. Then there is the whole argument that you could do carbon capture and storage. I am interested in that because I think it is very important for the future of our economy to do that. Will you be looking at that approach as the Chief Scientist? Is that something you are interested in?

Prof. Chubb: I do not know that I could usefully answer that question right now. Let me agree with your first premise that we will not be able to get away from it. Let me also say, though, that I do not want it to be the obsession of the office. There are other departments that can—

Senator CAMERON: It may be our obsession though.

Prof. Chubb: Yes. But it is also the obsession of other departments. I think there are people who are really expert in those sorts of matters. I was at a presentation given at CSIRO—I still sit on the board of CSIRO—on carbon capture and storage, and it looks really interesting. It does present interesting options for the future. But whether it becomes a matter of direct and detailed interest to the Office of the Chief Scientist I think will depend on how we approach our general role of talking about what options might be available to government—but building off the expertise of others, where you would have to go to get that expert advice. I think it is probably better for us to be thinking in those terms rather than setting ourselves up as yet another group of experts on something where the real expertise lies elsewhere.

Senator CAMERON: Would you be in a position at the next estimates to give us a considered view on what you see the role of the Chief Scientist being?

Prof. Chubb: How often are estimates?

Senator CAMERON: I think we get another one in—

CHAIR: November.

Prof. Chubb: Oh yes, we will.

Senator CAMERON: You did not think you would have this much fun every week, did you?

Prof. Chubb: I thought I would be telling you in 10 days and two hours. We will be able to get you that, yes.

Senator CAMERON: Good, thanks.

Senator MASON: My question flows on from Senator Cameron's erudite question. Professor, I just join with my colleagues in offering sincere congratulations on your appointment. I am sure it will be a great thing for Australian science.

Prof. Chubb: Thank you, Senator.

Senator MASON: To pick up where Senator Cameron left off, do you see yourself as an advocate for science and scientific research, or do you see yourself as an advocate for the government's views of science?

Prof. Chubb: I see myself as an advocate for science and scientific research, science education, scientific literacy in the community and the whole of science, so that when people are asked to make conclusions the level of scientific literacy—not within my three-year term I expect but over a period of time—will be increasingly built on a level of literacy that lets them come to terms with and draw conclusions from the information that is put before them.

Senator MASON: Does that mean you are not necessarily seeing yourself as an advocate for any government position on any part of scientific research?

Senator CAMERON: He is not a politician.

Senator MASON: I understand that but it is a fair question.

Prof. Chubb: I think the government is quite capable of advocating its own policy position. My position is to advocate the science that underpins the policy positions that government might adopt—and hopefully it will be improved by adopting that scientific knowledge and support for future policy directions.

Senator MASON: Thank you.

CHAIR: Thank you again, Professor Chubb, for coming here today for your first appearance. The committee looks forward to seeing you again. I now call officers from the Australian Research Council.

Australian Research Council

[14:48]

Senator Carr: Chair, if it pleases the committee I would like to table a ministerial statement on improvements to excellence in research for Australia. We provided copies to the shadow minister this morning. I do not need to speak to it. Copies have been given to the secretariat.

CHAIR: Thank you, Minister. Professor Sheil, welcome. Do you have any statement you would like to make?

Prof. Sheil: I will just summarise for the benefit of the committee the five key improvements that are outlined in the minister's statement. The five improvements have come about as a result of substantial feedback from and interaction with those involved in the Excellence in Research for Australia initiative. They build on the strength of ERA 2010 and I

think will substantially improve the outcomes of the evaluation in ERA 2012. The five main areas of improvement are as follows.

We will be refining the journal ranking quality indicator, removing the prescriptive A, B and C ranks and replacing them with a journal quality profile for each committee which will show the most frequently published journals for each unit of evaluation and give more weight to expert opinion in determining whether the journals are both of high quality and appropriate to the unit being evaluated. We will also strengthen the capacity of the ERA framework to accommodate multidisciplinary research, allowing articles with significant content from a given discipline to be assigned to that discipline regardless of where they are published. We trialled this method with mathematics in ERA 2010 and we think it is sufficiently robust to be extended across the board to all disciplines. We will bring the disciplines that were subject to peer review of outputs in the last round into line with all the other disciplines and raise the threshold to 50 outputs. We think that will give us a better outcome for those disciplines and also bring those disciplines more into line with those that use citations. We will change the rules for attribution of patents, plant breeder rights and registered designs to allow those granted to eligible researchers to also be submitted. That is to strengthen the number of applied indicators in ERA. And we are going to do a small modification to staff eligibility to bring that into line with university employment practices.

Together we think these modifications will substantially improve ERA 2012. I would like to thank all those who gave us feedback in the public consultation and privately, and also my staff at the ARC for all the work they have done in analysing that feedback.

Senator MASON: Thank you, Minister, for giving me this in advance of the proceedings today.

Senator Carr: I should indicate that there are minor word changes from the version we gave to you this morning. They are very minor. Take it from the official one for citation purposes.

Senator MASON: Professor Sheil, I have a few questions about the statement the minister has just released and then perhaps some more general questions on the portfolio budget statement. I will start with the refinement of a journal quality indicator to remove the prescriptive A*, A, B and C ranks and the introduction of a journal quality profile showing the most frequently published journals for each unit of evaluation. Professor, was this done because of the difficulty in ranking the journals per se, or was it simply because of concern expressed by academics about the ranking?

Senator Carr: I draw your attention to the second paragraph in the statement, Senator Mason, where I indicate that all along in this process of consultation suggestions had to be taken seriously. We certainly did; I certainly did. While generally, I think we would have to say, ERA has been exceptionally well received—I remain of that view—

Senator MASON: Except at the edges.

Senator Carr: Yes but that it is right; this is very much at the edges. This is not in any way a substantive change to the way we do business. It is an acknowledgement that some people were saying that we could improve the way in which we treated the journal rankings. We wanted to ensure that some of the preoccupations, particularly of the media, about these things were not continued, because it was a bit of a distraction from the way in which it really

worked. I think this is a more effective mechanism. I have asked the ARC to change the arrangements to acknowledge that people had suggestions how we could improve them and we have responded appropriately to those suggestions.

Senator MASON: Thank you, Minister. Is it because of the difficulty in ranking journals?

Prof. Sheil: No. I will just go back in time a bit. We included the journal ranking indicator on the advice of the best bibliometrics experts at the time. We wanted to counter the behaviour of publishing in quantity rather than quality.

Senator MASON: I understand that.

Prof. Sheil: Both those objectives have been achieved. We have certainly focused the sector on publishing in quality journals. The list that we had for 2010—as I have indicated before at estimates, 22,000 journals is a very small number of journals in dispute going forward. With the focus moving into 2012 it was going to be very difficult to take on board all the feedback of the nature of 'I want to be an A2'. So there was that issue. More important, I think, was the fact that experts are in the best position to assess whether the quality of the journal and the nature of the journal is right for that unit. To give you an example, we have a number of field of research codes that really are two codes in one.

Senator MASON: I understand that.

Prof. Sheil: A medical science example would be neuroscience and ophthalmology in the same group. The ophthalmologists will publish in a very different place, more clinically applied, than the neuroscientists. If you put them all together you will probably get most of the A ranks leaning towards the neuroscience rather than the clinical. The committee is not in a position to say what sort of unit it is—whether it is really a neuroscience unit where we would expect these international A* journals or whether it is a clinically focused unit that would publish in a different place.

Senator MASON: All right. I have got that. How then do you take account of the different quality of journals? Clearly not all journals are equal—let us be frank. How do you take that into account?

Prof. Sheil: What we are doing is instead of the ARC trying to do this uniformly across the board for 22,000 journals we will be giving that responsibility to the experts doing the evaluation. The expert committees will be presented with journal quality profiles and they will evaluate—

Senator MASON: Which will be made public?

Prof. Sheil: The universities will know where they are publishing. We will look at—

Senator MASON: Will the relative—it strikes me that there is still a relative ranking. There must be a relative ranking of some sort so you can evaluate—not all journals are equal, let us be frank.

Prof. Sheil: That is true but—

Senator MASON: So how are you going to ensure that the relative ranking of journals is taken into account?

Prof. Sheil: The committees will review where they are publishing. They will be presented with a table of the 20 most frequent publications for each unit. The committees know about the quality of the journals. So when the team were exploring this, for example,

they presented me with 10 lists of chemistry journals for physical and structural chemistry, which is my area of expertise, and immediately I could tell by looking at the list that this group is publishing in high-quality journals and this group is not.

Senator MASON: Right. But what is high quality and what is not? Will that be made public?

Prof. Sheil: What we will do is publish information about national publication statistics but we are still confined a bit by the constraint for the universities of us not wanting to publish their individual details. But that is a conversation we will have now that we have made this decision about what else we can present publicly.

Senator MASON: I am not saying I oppose it, Professor; that is not what I am trying to do. I am just saying it is a difficult quandary here. I understand why you have done this and I am not saying it is incorrect at all from a policy perspective but it is difficult, isn't it?

Senator Carr: The problem we have is that as soon as you start to prescribe any list of that form you get into the old problem about 'Why aren't I on A list?' when we put them on B. This stuff can be incredibly esoteric at the best of times but when we get into the relative weightings of journals that is why I am asking the ARC to rely on the expert advice of the relevant disciplinary committees, which do know the fine level of calibration. Yes, you are quite right—I know the point you are making: it is a subjective judgment. But that is what experts do.

Senator MASON: I am not saying that that is incorrect, Minister. It is more that we have replaced a formal ranking procedure—which, sure, had its problems—with an informal ranking procedure with fine calibrations, which is not going to be made public. Is that better?

Senator Carr: Advice will be provided to the universities about where people stand. That consultation will occur with each individual university.

Prof. Sheil: There are many examples. If you are working on Australian public administration you should be publishing in Australian public administration journals.

Senator MASON: Sure.

Prof. Sheil: That is the kind of nuance. I understand what you are saying but we need to balance that against the weight that a government list carries in individual performance discussions within universities, which I think balances—there are always trade-offs.

Senator MASON: I know it is a difficult problem and I am not trying to suggest that there is some easy prescriptive answer here, because the feedback I have received—and I am sure you have received a hundred times more—is all about the problems with the process. There are always problems. I know that. I am not trying to say there are not. I think this is a great attempt to overcome some of them but I suspect that this will generate its own.

Senator Carr: You are quite right. I would just make this point, though, Senator, and it is the last point we make on this statement: the whole process of consultation, if it is to be taken seriously, means that you do not have a closed mind about future changes. We think the integrity of the scheme has been demonstrated. That does not mean we do not look for constant improvement.

Senator MASON: On the review process and the timetable for the review, Professor, you mentioned July.

Prof. Sheil: We have done the major consultation on ERA 2010. We have taken on board that feedback and provided options to the minister, which have been outlined today. We will now turn them into submission guidelines and there will be a further opportunity for the sector to comment on those.

Senator MASON: What is the time line?

Prof. Sheil: We are hoping they will be out in July. But I am pretty confident that I will start to get feedback on this proposal from this afternoon.

Senator MASON: Shortly—I am sure that is right. I raised briefly last time the issue of writing a book. I have received this feedback and I expect you and the minister have. There is some concern that writing a book does not have the same punch or academic weighting that publishing in journals does. Do you agree with that or is that an oversimplification?

Prof. Sheil: That is, I think, one of the unintended consequences of the journal ranking process and the focus on journals. Certainly, within the humanities and some areas of the social sciences, the book remains the pre-eminent form of publication. Part of our thinking in going into this modification is to have whatever outputs of that particular unit of evaluation presented to the committee in this kind of form; therefore, where the book is the predominant form, that will also be obvious to the committee that is doing the evaluation. We hope to address that, because it is not the case that the book is not important in many disciplines. In fact, it remains the pre-eminent form.

Senator MASON: How do you weight a book? You can talk about journals, even an informal ranking. How do you weight the academic merit of a book—is it by the publisher?

Prof. Sheil: We explored doing a ranked publisher list last time and it had many more issues around it than the ranked journal list had.

Senator MASON: It would be even more problematic, wouldn't it?

Prof. Sheil: Much more, because of the publisher mix of academic outputs, commercial books and textbooks. So we did not proceed with that. We explored that but did not proceed with that activity. In many cases, many people would look at who publishes the book, more so in terms of the nature of the publisher than the precise publisher—is it a well-respected international press, is it a press that will publish—

Senator MASON: A scholarly press or—

Prof. Sheil: Yes. Also, those units that are evaluated by peer review are predominantly those in which the book is an important form of publication.

Senator MASON: It is so complicated. I know that you are trying to develop a matrix and I applaud your efforts, but trying to weight a book is such a complex thing.

Prof. Sheil: In going into the formula for the number of outputs, a book is weighted five times. So, to reach the threshold of 50, a book is five times that of a journal. Some would argue that is the right ratio and some would argue that it is not.

Senator MASON: Five times what sort of journal?

Prof. Sheil: If a journal counts for one, a book counts for five.

Senator MASON: Okay. Last time we discussed briefly a matter to do with the confidentiality of applications with universities. You had some reservations about my request.

Would it be possible to obtain a list not so much of approved individual applications, both accepted or rejected, but a list of accepted applications broken down by universities as well as a list of rejected applications broken down by universities for the past two rounds—for example, Australian National University, number of applications accepted, number of applications rejected? Could you do that?

Prof. Sheil: That is published in the selection report.

Senator MASON: It is there, is it?

Prof. Sheil: Yes.

Senator MASON: That is bad homework on my part. Is it by university?

Prof. Sheil: It is published by university. It is the number of applications, successful or otherwise, with the exception of one scheme, my note tells me, which is the Australian Laureate Fellowships. We do not do that because the numbers are so small that we might be actually identifying individuals by identifying their institution. But, for all other schemes, we publish it in the selection report.

Senator MASON: Can I go to funding and leave the academic matrix and the research matrix alone for a second. In the ARC budget statement under the heading 'Agency resources and planned performance', I see that the expense for ERA as an item in your overall budget will vary slightly over each year of the forward estimates. This is on page 188. It is around \$6.5 million next financial year, then it dips to \$5.7 million before rising again to over \$7 million in the last two years of the forward estimates. That is over the next four years. Now, looking at the department of innovation's additional budget statements on page 47, the department had a special appropriation in the Higher Education Support Act for ERA, which was \$1.409 million of estimated actual expenses, but there is no money for that item in 2011-2012. Why is that? What am I missing?

Prof. Sheil: That was funding provided to institutions to assist them in developing repositories in preparation for ERA. It was the money provided to the universities.

Senator MASON: To adapt their research structures to accord with the new—

Prof. Sheil: Yes. It was to create the institutional repositories, essentially. The way that ERA worked was that a book or a journal article that was to be peer-reviewed was placed in an online repository, then our systems went into that and accessed it. So that funding was provided to the institutions to assist them with that process.

Senator MASON: That has been done now; so there is no need for any further funding?

Prof. Sheil: Yes.

Senator MASON: I know the minister is keen on this: can I ask about comparability, because that is clearly what is important—comparing 2010 with 2012. With the changes that have been suggested today by the minister in his statement, are you confident that there will be sufficient commonality to allow comparability between the two trial years?

Prof. Sheil: Yes, we are. One of the things that we are preserving in relation to maintaining the journal list is that we maintain the list itself, whether it is peer-reviewed and so on, and we are also preserving the classifications against field of research, which is important for maintaining the comparability of each unit of evaluation from one year to the next. We have modelled the impact of the changes to the interdisciplinary research and we do

not think that will have a big effect on the outcome, but it will have a big effect on those individuals in that example. We may see some small variations as a consequence of the committees being able to better evaluate different forms of research, but I do not expect to see wholesale changes. There will be changes anyway, because the reference period has moved on and institutions have changed their profiles. But we have done these changes in such a way as to build on ERA 2010, fix as many of the things that we could around the margin while keeping the framework and provide us with a better outcome going forward—in particular, better tools for institutions moving forward as well.

Senator MASON: You realise, Professor, that already you have had an effect, I note, on how universities are advertising themselves—have you noticed that?

Prof. Sheil: Yes, we did.

Senator MASON: You have probably noticed it too, Minister. I am not objecting to it, but—

Senator Carr: Remember that we have always said that, if you pick an instrument like this, you will change behaviour. That is part of the game. We actually want to lift people up the value chain. I have said all along that this is about trying to encourage people to pursue excellence. We cannot do every single area of research at every single institution, so we are going to have to pick and choose. This is a way that people get more of an evidence based approach to that assessment. It should not just help to inform governments; it should help to inform administrators on decisions and it should help academics and students too. It should help investors.

Senator MASON: Yes.

Senator Carr: We want to know from a company perspective—we are trying to lift the level of company involvement with universities and private sector R&D. It helps people to know where the strengths are in the system. I emphasise this point: it also helps us to identify the weaknesses. These are things that we can all move to correct if we choose.

Senator MASON: I think it is fair to say that many of the universities—and I say this gently—were self-advertising certain things about their courses that they could not in fact justify. In my view, it is a good thing now that people are being put, in a sense, under scrutiny. Okay, there might be a bit of argument about topping and tailing, but that does not change the guts of it. Some universities have done much better than expected. I think that is a good thing. I think a bit of competition is a good thing.

Senator Carr: There is essentially a higher level of accountability.

Senator MASON: I agree.

Senator Carr: What we are saying is that public institutions have to be accountable to the communities that sustain them. You cannot go on being double-jointed all your life in this game. You actually have to demonstrate to people that patting yourself on the back is not enough.

Senator MASON: Only for so long, Minister. I want to ask a question that is an example, in effect, so that I can follow this. I am not a scientist and I do not understand many of the ways that scientists evaluate research and so forth. Can we go to a discipline that I have some

familiarity with. Can we go to law, which I know you do not like because it is very problematic.

Prof. Sheil: No. I am going to speak to an association of lawyers next month.

Senator MASON: Good. We had a conversation last time about the ranking of journals. As you know, that was problematic. The *Harvard Law Review* might be A-starred and the *Federal Law Review*, which is the ANU's, might be an A journal. There are arguments, but, again, not all of the law journals are equal. You can say that without any fear of rebuke. With the new system, if I am a legal academic and I publish an article in the *University of Queensland Law Journal* or the *Federal Law Review* down here at the ANU and then I publish one in the *Harvard Law Review*, let us say, how are those different journals weighted in terms of my research output?

Prof. Sheil: What will happen—

Senator MASON: This is an area I know something about, so I just wanted to—

Prof. Sheil: Surprisingly enough, when we were looking at this with the matrix team, we pulled out some profiles for different law units across the country.

Senator MASON: I am delighted!

Prof. Sheil: What was very interesting about that was that, where a particular area or a particular law unit had published in their own law journal, that was really obvious. It did not matter then whether it was an A-star or where we had ranked that university's law journal. The committee would now be able to say, 'Well, 50 per cent of their outputs were in their own journal, 10 per cent were in the *Harvard Law Review* and actually 10 per cent of this is really more appropriately in international law journals, because they have a Japanese law specialist.' That was much more obvious when you looked at the profiles than it is where you are just looking at 10 per cent A-star or B and C. You alluded to some problems with the legal academics. The legal academics are very focused on the quality of their journals, so they know what the best journals are. We think this system will inspire them to continue to publish in the best journals, but it will also allow those doing the evaluations to understand more about the nature of the unit being evaluated.

Senator MASON: So, rather than having the formal ranking of starred A and so forth, what would the actual process be? Would a group assess the individual work or the individual journals?

Prof. Sheil: If law remains, as I believe it will, one that has peer review, which means that there is no citation metrics that are suitable, the committees will be presented with a range of information. They will be presented with the outcomes of the peer review process of a sample of their outputs. Some of those outputs will have been accessed through those repositories and peer-reviewed. That information will be fed to the committee. They will be presented with a profile of the journals and books, if the committee is interested in that as well, where they are published and how many they have published in those particular journals. They will be presented with information about their competitive peer-reviewed income. They will be presented with a statement that gives the context for the research—for example, this group is focusing on international law or maritime law or constitutional law so it should have an Australian focus. They will get all of that information on what we call a dashboard and then they will look at that and compare it to the national benchmarks, say, for income or numbers

of publications. They will review that information along with the information from the peer review and develop evaluations of each unit.

Senator MASON: Thank you for that. What seems to have happened is that we have moved from a formal ranking—and, I concede, a slightly problematic formal ranking; we would all agree it is always slightly problematic—to an informal ranking which may be superior, but there is still going to be a ranking. There has to be, doesn't there?

Prof. Sheil: There is still an evaluation.

Senator MASON: Okay, an evaluation.

Prof. Sheil: It is not a ranking as such; it is an evaluation.

Senator MASON: If it does not rank then it is not much of an evaluation. In the end, someone has to make a judgment about what is a better journal.

Senator Carr: And that is the key word—judgment.

Prof. Sheil: Yes. So it is experts making a judgment. The issue around us reconciling those judgments for 22,000 journals is that a journal could be ranked highly for one type of research and not for another. So, if you are working in Indigenous health, publishing in the *Medical Journal of Australia* is a very appropriate and good outcome. But, if you are working on HIV-AIDS, which is an international problem, you should be publishing in a different journal. Therefore, if you only got that published in an Australian journal, that is probably not a good outcome. So the advantage of this system is that we will be able to get a much better understanding of those kinds of nuances. It is the same with law. You have different types of lawyers within one unit of evaluation.

Senator MASON: It is so nuanced. You used that word, and it is. If it is a constitutional law issue, let us say, you could publish in *Federal Law Review* appropriately, I think you would say. You could publish in the *Australian Law Journal*, which would also be an appropriate place. My point is: how do you rank those two? I would hate to rank those two.

Prof. Sheil: We are not going to.

Senator MASON: No—but even if you can give a judgment as to evaluation. It is quite a difficult thing.

Prof. Sheil: But if you do this all the time, as academics do, you can do it very easily. I gave the example of the team presenting me with the chemistry journals. I can do it within five minutes. I can look at that group and form a judgment because of what I know about the discipline and the publishing behaviour in my own discipline. I think what really distinguishes what we are trying to do from other metrics based evaluation systems is that we recognise that experts are critical to the process as well as the numbers. What we have proposed and will implement for ERA 2012 is a refinement on that thinking and, I think, a significant advance.

Senator MASON: I keep thinking of that film called *The Matrix*. ERA might be caught in that huge web.

I raised this issue last time and it is certainly an issue that is constantly raised. I suspect it is raised with you: that is, of course, impact. You would have heard this debate often. I have had many emails about this. Someone may write an opinion piece for the *Australian*—or, God forbid, the *Melbourne Age*, Senator Ryan—and it could have enormous impact. This can happen. Public intellectuals can write for newspapers that are not considered—how can I put

this—necessarily high-quality journals. Are you proposing to more accurately assess impact? I know it is again very difficult, but it is a fair question, I think.

Prof. Sheil: First of all, the question is not about the article in the *Australian* or the *Quarterly Review* or whatever; it is about the research that underpins that. That is what we are interested in. It is rare, actually, that excellent research does not go alongside or lay the foundation for the other excellent forms of engagement or outcomes. If you want to get a scientist to explain something and the implications of that, invariably, the better the scientists are, the better they are at explaining that. That is true of public intellectuals as well. So that is one thing. If we look at the outcomes for ERA and we look at things like what the correlation is between ERA outcomes and units that had a high level of CRC income, which is a very end user focused activity pulled by the industry or the other partners, we see a very high correlation between excellent outcomes and the influence of the income derived from end users. What we are not going to do is go to a case study approach. Some of the emails that you receive, which are similar to the ones that I receive, are advocating a case study approach: we want to tell you a story about our potential impact, but we do not have a way to measure it.

Senator MASON: No, it is clearly more general than that. Let me explain. I hope I am not lacking generosity here: most academics or many academics write for other academics. I do not think that is wrong. Yet the other day in the *Australian Literary Review*, which, of course, is published in the *Australian*, Dr Shergold wrote a piece. You would have seen that, Professor.

Prof. Sheil: Yes.

Senator MASON: And what did it say? Too many academics write for each other and they have little idea about public policy outcomes that might flow from their research. My point is: what about public policy outcomes? Why aren't they given greater weight? I think Dr Shergold put his finger on something quite important there. Don't you agree?

Prof. Sheil: One of the issues there is that that is really a question of the value of that academic to wherever they are. So that is really a question for the university: do they value that level of activity; do they encourage and support that type of activity? When people raise this with me and I ask them how we could measure it, there is a deathly silence, I guess, as to how you could measure or capture that. And, if you could, how would it correlate to excellent research outcomes across the board? I am not saying that it is an easy area or that we have an easy answer. We are looking at what is happening internationally, but nobody internationally, apart from the case study approach, is doing anything better or anything that we are not aware of or that we have not considered.

Senator MASON: So the case study approach is being used to assess impact and there is no other way of doing it?

Prof. Sheil: It is very difficult to do it in any other way and it is questionable whether that is a valid way to do it as well.

Senator MASON: So you would even question, in fact, whether that approach accurately assesses the impact?

Prof. Sheil: Yes.

Senator MASON: You only have to think of people like Professor Bruce Chapman designing the HECS scheme. That was a terrific academic achievement, yet I wonder under this scheme—under ERA—whether he would get any credit for that.

Prof. Sheil: It would not have fallen within the reference period.

Senator MASON: Indeed, but you see my point.

Prof. Sheil: Yes. But the point, which is actually a serious one, is that the speed or the time to get to that kind of uptake is so different across disciplines. Computer science developments are taken really quickly, medical science developments can take 20 years to be recognised and the Bruce Chapman example is probably underpinned by research that he did a number of years before that and its impacts extended over a longer period. We are conscious of that and that fed into our thinking in terms of the refinements to the general quality indicator so that they can also have recognition for publication in an area where there will be more uptake of their research.

Senator Carr: Senator Mason, there is another aspect that Professor Sheil has been too polite to mention.

Senator MASON: But that will not hold you back, Minister!

Senator Carr: Don't worry—I will not be quite so restrained! Under the RQF there was a high level of subjectivity about the question of impact.

Senator MASON: Yes, because they tried to measure it.

Senator Carr: It is a very difficult task, as you have indicated. It was subject to considerable rorting. I certainly did not want to have anything to do with a program that could be so easily manipulated and distorted, given that we do recognise that this process will invariably affect behaviour. So it is a question of applied research—that is the way I would describe it, rather than impact. That is a separate issue and we are looking at ways and maybe separate measures to get a better handle on how we can more effectively demonstrate the value of applied research in the program.

Senator MASON: Otherwise you get—and, Minister, you would remember this—academics writing very much for other academics.

Senator Carr: Yes.

Senator MASON: It is a very small group looking at each other. I am not trying to be rude. But it can really promote your career to write for a very small group.

Senator Carr: There is another aspect to this, Senator—that is, the extent to which a shared set of assumptions are prevalent in academic writing. People take a shorthand route, believing that the assumptions are already understood—that is, the assumptions that underpin the discourse—and therefore academic writing often is for a specific audience. It is not for a general audience; it is actually for one's peers. I think the context of publications needs to be understood as well.

Senator MASON: I accept that. It is just that the impact you can have through being able to write well for a general audience can be far greater than you could ever have writing for—

Senator Carr: That is right, but you can write a lot of rubbish, too, and claim that it has an impact.

Senator MASON: You can. But do you see the point?

Prof. Sheil: I totally understand the point. As I said, we are monitoring international developments and we are looking at a whole range of available measures. There are not many. There was a German evaluation expert who spoke to Universities Australia. He came up with one measure that we had not already considered or incorporated. There are not that many measures out there that meet the criterion of being reproducible over the time period and so on.

Senator MASON: So, when you can come back in October, the system will be perfected. Is that right?

Prof. Sheil: No, I would never claim to be that ambitious. I think we have made considerable progress and, as I said, I am blessed with very talented staff feeding into this process.

Senator MASON: Thank you.

CHAIR: That brings us to the end of the ARC's session. Thank you, Professor Sheil and others from the ARC, for attending today.

Proceedings suspended from 15:28 to 15:45

Department of Innovation, Industry, Science and Research

CHAIR: We will commence with the innovation and industry section of the Department of Innovation, Industry, Science and Research. Mr Paterson, do you have a statement you would like to make?

Mr Paterson: It is not a formal statement but at the start of proceedings today Minister Carr made a number of quite gracious observations in relation to me personally and to the contribution that I have made, and I wanted an opportunity to very briefly respond to the comments that he made. Nothing forced or required the minister to make those observations, and that makes them especially pleasing to me personally and, I hope, to the colleagues that I represent at this table. It has been an honour for me to be the secretary of this department and of the Department of Industry, Tourism and Resources before that. Estimates on this occasion is my penultimate act; I finish tomorrow and start my new role in Sydney on Wednesday. But I did want to be here to ensure that we were able to bring conclusion a number of matters that had been raised on a number occasions during these hearings. One of those was the ANSTO review that we referred to earlier today. As I said, it has been an honour to have this opportunity to perform the role of secretary of two major Commonwealth departments—albeit with a lot of similarities between them. I am gratified that the Minister saw fit to place the observations that he did on the record, and I want to formally thank him for doing so.

Senator COLBECK: Now that we have formally we got to your part of the portfolio, Mr Paterson, I would like to add our thanks to you for your work and our appreciation for the interaction, and to wish you all the very best in your new role in New South Wales. We appreciate the assistance that you have been able to give to the coalition, both in government and from a different perspective in opposition over recent years. Again, thank you very much. I must repeat that it is almost above and beyond the call of duty to hang around to do a final estimates but I do appreciate you have stayed to finalise the report for ANSTO. I can understand that, this being estimates, you are possibly counting the hours but I just acknowledge—

Mr Paterson: We can jointly do something about that.

Senator COLBECK: Both count them together?

Mr Paterson: Reduce them I think is the point.

Senator COLBECK: It could be a multiparty approach. While we are dealing with Mr Paterson's resignation, Minister, can you run us through the interim arrangements that might apply to the department?

Senator Carr: The normal procedures for the appointment of a secretary of a Commonwealth portfolio will apply.

Senator COLBECK: What is normal?

Senator Carr: Perhaps the secretary can advise.

Mr Paterson: The procedures under the act at present are that the secretary of the Department of the Prime Minister and Cabinet consults with the portfolio minister and then provides a report to the Prime Minister. Appointments of all secretaries are made under the Public Service Act by the Prime Minister. That process, I understand, at least has commenced. In the intervening period Patricia Kelly, deputy secretary in the department, is acting in the role. In her absence Sue Weston will be acting secretary until such time as the position is filled.

Senator COLBECK: Minister, you do not have a time frame for the completion of that process?

Senator Carr: I would not think it would take too long.

Senator COLBECK: It would be a final process through cabinet—is that correct?

Senator Carr: No. The process, as the secretary has outlined to you, is that appointments of secretaries are made by the Prime Minister in consultation with the portfolio minister on advice from the secretary of PM&C and after consulting with the Public Service Commissioner. Those processes will be undertaken in the normal course of events and I anticipate that a statement will be made forthwith.

Senator COLBECK: Thank you. Mr Paterson, perhaps you could tell us what you think might have been the biggest challenges for you in the role.

Mr Paterson: I would not dwell on issues like that. Estimates is about, I know, responding to your questions, but there are many challenges in these roles and they vary over times. I suppose the toughest of all is the priority allocation decisions—to make the judgments about what can and cannot be done with the resources that elected governments choose to provide to individual portfolios. No government wants to hear that we cannot do something with the resources that have been made available to us, and making those judgment calls—because it impacts not just on the delivery of the service or the development of the policy but also on individuals who might hitherto have been working in that field where you need to make a judgment that we will no longer be able to do that activity as we move to new priorities. I think they are the toughest judgment calls that need to be made and they are the ones that governments of whatever political persuasion find the least attractive of the conversations. They are challenging roles but they are very rewarding roles.

Senator COLBECK: And that will not change going forward?

Mr Paterson: I do not believe so. We always have to choose to do a range of desirable things from the resources that are made available to us and whatever set of economic circumstances we may be confronted with. They are not inconsiderable resources that are applied to the tasks that we are asked to undertake but we have to make priority choices amongst a whole range of desirable things.

Senator COLBECK: It would be fair to say that this particular portfolio has been impacted pretty significantly in some of the difficult decisions as far as costings are concerned of late.

Mr Paterson: There has been a lot of speculation that has not necessarily been borne out by the facts. Certainly hard decisions have been made by elected governments that impact on the portfolio and some of the programs that we have a responsibility for delivering. But we are a larger department than we were in 2007. We have a broader range of responsibilities than we had in 2007. The department was larger in 2007 than it was in 2002 when I joined it. The range of activities that we have had responsibility for has changed over time, whether through machinery-of-government changes or changes in government priorities, but I do not think that we have been harshly dealt with; nor do I think that we have been subjected to any special treatment.

Senator COLBECK: Do you mean that in a positive or a negative way?

Mr Paterson: There are decisions governments take that mean that we no longer run programs that there may have been a strong constituency of support for. That transition process is difficult to manage. But we have taken on a whole range of new activities. We took over responsibility from the states and territories and took on a new regulatory role which is a new role for the department. I think everybody associated with that can feel justifiably proud. We took something over from the states and territories—something that had been done since federation by the states and territories. That was trade measurement, which is looking at the regulatory enforcement of retail measurement—transport fuels, what you get at the butcher's shop or the fruit and veg store, or major weighbridges. That activity was always a state and territory responsibility. We took over that function from the states. We took over their staff. We took over their assets. That was seamlessly undertaken on time and on budget and effectively implemented. That is but one example of the many areas where we have been successful.

Senator COLBECK: In relation specifically to the state of manufacturing, would you say the department has a different view about the importance or the future of manufacturing than, say Treasury? That appears to be a point of difference, perhaps.

Mr Paterson: There will always be different perspectives that are provided to government by way of policy advice from different agencies. If it was one single, amorphous common view then you might be able to significantly alter the way you operated. There are differences in perspectives that are taken into account from difficult portfolios. Governments of all political persuasions have to make judgment calls. They will hear different advice from different parts of government. They will hear different advice from people outside government. We have responsibility for manufacturing policy so it is not surprising that we would express a view to government on that that may differ from views that are expressed elsewhere in government.

Senator COLBECK: It is an interesting point you make. It is similar to a conversation I have had in a different portfolio about a different element, but a slightly different context and perception. I appreciate your answer. In relation to the proposed carbon tax, again, industry policy is significantly affected by the potential impacts of that. How many times have you provided written briefings, either individually or on behalf of the department more broadly, to Minister Combet's department or the Prime Minister's department on the tax?

Mr Paterson: I would not want to venture a guess in answer to that question, nor would I want to take it on notice. On that major and very complex area of public policy, we have provided advice and been engaged with other parts of government over an extended period of time—as we were under the former government, when we provided advice and input in relation to many complex areas of policy consideration. If I were to suggest potentially hundreds—that may be an exaggeration but it is certainly a very significant area of engagement by the portfolio with other parts of government and advice to government.

Senator COLBECK: Do you think that the agency's voice is adequately heard in that process? There have obviously been significant deductions made from this portfolio, as there have been from some others—but this one has had some fairly significant funding cuts out of its appropriations, particularly for programs, over recent times. Do you think that this agency's voice is getting strong resonance in that overall context? Or is it because you have some fairly significant programs running that you were effectively targeted?

Mr Paterson: A significant part of our activity has historically been in the delivery of programs, and that is not necessarily the case across all portfolios. So it is not surprising that if there are changes in relation to programs that a key program delivery agency wears the consequences of those decisions. But none of us will really know the extent to which our view has been heard until such time as the government announces its decisions in relation to the new regime. We await that with interest, as I am sure others do.

Senator COLBECK: Do you have any input, in your capacity as secretary of the department and given that you had experience on Prime Minister Howard's task force on emissions trading, into the Multi-Party Climate Change Committee?

Mr Paterson: I have had no direct input into the Multi-Party Climate Change Committee. However, there are secretary processes that stand behind that committee. I have attended none of the committee meetings, for example, but there is a secretaries committee that deals with issues that go before the Multi-Party Climate Change Committee and, yes, I have been both personally and directly involved in many of those.

Senator COLBECK: Does your resignation also mean that you will be leaving your role on the CSIRO board?

Mr Paterson: That is correct. A decision was taken that it ought to be the secretary of the department who is represented, so I would expect my successor to take up an appointment on the CSIRO board.

Senator COLBECK: What about your role with the ANSTO health and safety committee, or is that completed now?

Mr Paterson: That is completed. That was a time-limited terms of reference review and we have provided the report to the minister.

Senator COLBECK: So the CSIRO position will be taken up as a matter of position by the next secretary?

Senator Carr: I have basically made a policy decision which was recommended to cabinet and accepted by cabinet that the position will be for the secretary. So one of the positions on the board will be made available to the incoming secretary.

Senator COLBECK: You mentioned the input into the multi-party climate talks and the secretaries group that sits behind that. What sorts of resources have been taken up by the department in providing advice and briefing and associated materials to the Greens with the formal arrangements that are in place with the government following the election?

Mr Paterson: We have provided no direct input into that process. Our input is into the secretaries committee and into providing advice, support and assistance to the minister from a portfolio perspective. We have been active participants and the secretaries committee deals with issues that will go to the MPCCC but it also deals with all of the same issues that may be considered by cabinet or cabinet committees in that same process.

Senator COLBECK: But the department has not had to provide any other particular briefing materials to the Greens directly as part of their relationship with the government under the agreement that has been signed between them?

Mr Paterson: No, we have not provided any direct briefings.

Senator COLBECK: Not necessarily climate change associated; I am talking about more broadly on departmental issues.

Mr Paterson: There is some legislation before the parliament at the present time which we have directly briefed the Greens on. That is the R&D tax credit legislation. That is to be considered by the Senate. It has been to the House of Representatives.

Senator Carr: That same advice was provided to all other senators, parties and Independents.

Senator COLBECK: That is that process we have been discussing for a period of time now and that has been through a Senate inquiry?

Senator Carr: That is right. There was no special advice provided to any particular group in the Senate. It is a standard consultation process we go through.

Senator COLBECK: Based on a request by a party?

Senator Carr: In fact, we offer it. It is a standard offer. For major legislation we are more than happy to provide advice to any senator.

Mr Paterson: And obviously the legislation on which we have been providing those briefings is before the Senate. We are not undertaking consultations in the lead-up through that process.

Senator Carr: I believe that casual Fridays are still a bit of a bugbear of yours. How does that work within the department?

Mr Paterson: We do not have such a thing, Senator.

Senator COLBECK: You have managed to—

Mr Paterson: I have taken no stance in relation to it.

Senator COLBECK: So it is not that you do not have casual Fridays; you just do not have a stance anymore?

Mr Paterson: I suspect that there is a bit of apocryphal stuff that is put about. I do not know where you have got it from.

Senator COLBECK: The rumour mill obviously works in some—

Mr Paterson: I think that there are certain standards that should be adopted. I think on one occasion I might have commented vigorously and negatively in relation to the attire of one individual. It would not be appropriate for me to use the term that I used to describe that person's appearance on the record. But I think that there are appropriate standards that ought to be maintained.

Senator COLBECK: So, as you say, in your view there are a certain set of standards that should be observed and you would like to see them observed?

Mr Paterson: That is absolutely the case. No-one has to dress like me to meet those standards.

Senator COLBECK: But very dapper, I'm sure!

Mr Paterson: This is not about passing judgment on my attire, Senator.

Senator COLBECK: I feel hardly qualified.

Mr Paterson: It is my last day here, Senator. How risky am I prepared to be?

Senator COLBECK: We came in here hopeful.

Mr Paterson: I would regard baggy-arsed track pants as inappropriate attire in a workplace.

Senator COLBECK: On any formal description of a certain day of the week?

Mr Paterson: On any day of the week, Senator, I would not regard that as appropriate attire.

Senator COLBECK: What about what has been described as a culture of morning teas, afternoon teas and drinks sessions in the department, including during work hours?

Mr Paterson: I do not know what you are referring to, Senator. I do not think there would be any negative culture in the organisation in relation to any of those.

Senator COLBECK: So there is no excess prevalence of morning teas, afternoon teas or functions of that nature during working hours that would affect efficiency?

Mr Paterson: None that I am aware of. It has never been asserted or put to me that that was the case. I have never observed it as the case. I think that, as in all workplaces, there is an appropriate balance that is struck between meeting the objectives and ensuring that there is an appropriate level of interaction between the individuals in the workplace.

Senator COLBECK: My understanding is that the department has also contributed to a tab that is made available for the Christmas party and after-party for staff in December each year. But I understand that was cancelled in 2010. Can you give us some background to that if my allegation is correct?

Mr Paterson: We have provided some support to a function that is predominantly funded by the individuals concerned in the social club's activities.

Senator COLBECK: It is a social club event?

Mr Paterson: It is a social club organised event. We have made some contributions over time and we make a contribution to public transport to support people getting to and from the event. I think there were some changes made in relation to an after-party for 2010—a change that I support.

Senator COLBECK: In statement 4 of Budget Paper No. 1 there is a rather modest set of statements about the importance of industrial production in Australia's economy under this government, which is revealing enough in itself. Would you care to comment on the information that is displayed in box 4 of statement 4, which talks about Dutch disease? Are you able to reflect on the concept as it potentially relates to Australia?

Mr Paterson: Where are you in statement 4?

Senator COLBECK: I am on 421. Statement 4, 'Opportunities and challenges of an economy in transition', box 4.

Mr Lawson: The box refers to the historical example of a short-term boom in fuel exports from the Netherlands which turned down after a couple of years. They made the point that that did not have a permanent impact on the state of the manufacturing sector in the Netherlands, despite fears at that stage that that would be the case. On the point I think they were trying to make in statement 4, the concept is that in Australia we face a long-term high terms of trade and considering the impact of a short-term terms of trade boost is of limited relevance.

Senator COLBECK: That was the point. Are there any lessons that can be drawn right now, do you believe, in the context of that document? Are there any lessons to be drawn from that past experience in the Netherlands for where we are at now?

Mr Lawson: I took it as a bit of a theoretical description of the difference between a short-term terms of trade impact and the potential for at this stage what is forecast to be a long-term high terms of trade.

Senator COLBECK: So slightly different circumstances—

Mr Lawson: Yes, different circumstances.

Senator COLBECK: in the current context of Australia?

Mr Lawson: Yes.

Senator COLBECK: I will move on to the carbon tax. We may have covered this earlier in a slightly different context when we were talking about the multi-party climate talks. Has the Prime Minister's office or department asked this department for formal briefings or analysis on the impact of a carbon tax on Australian industry?

Mr Paterson: We have been involved in consideration of all elements of the proposed arrangements. When you are actively an integral part of that process, who asked what for what and when is not a relevant consideration, I do not think. We are active participants and we have been active participants for a significant period of time. We have provided numerous pieces of advice and input into that process.

Senator COLBECK: Where has all of the modelling been done? What sort of modelling or analysis has been done as part of the process—any within this department?

Mr Paterson: No, the modelling has been undertaken inside Treasury.

Senator COLBECK: What access to that do you get?

Mr Paterson: We do not provide input into the modelling. The modelling is undertaken within the Treasury portfolio.

Senator COLBECK: So you do not provide any input into the modelling at all?

Mr Paterson: We can comment and have commented on the approaches that might be modelled.

Senator COLBECK: And some of the assumptions that might go into it?

Mr Paterson: And the assumptions that might stand behind it. And there are interdepartmental committee structures which inform that process. But the formal modelling responsibility, once decisions are taken following that input, rests with the Treasury.

Senator COLBECK: Whose responsibility is it for the publication of those inputs? One of the things that we saw last time was that, through the CPRS process, there was lots of information that was put out there as a result of modelling. Subsequently, it was found that some of it was actually inputs to the modelling. So how do we assess or find out what is an input to the process versus what is a result of the modelling?

Mr Paterson: I think there is an expectation that the modelling will be published. The modelling was published on the last occasion. It is for others to make a judgment based on what is published. It is difficult to talk in hypothetical terms about what might be regarded as an input to the modelling or as an outcome of that process.

Senator COLBECK: I have had a similar conversation with other agencies—for example, ABARES, which have since indicated to us that they are prepared to publish and clearly indicate in their published work what the inputs to the modelling process were. It is an important thing to understand.

Mr Paterson: If they have been asked to undertake some work that is part of that modelling process then that is an understandable response for them to come up with. We have been involved in consultations in relation to the modelling, on what some of the assumptions may be or what the nature of the scenarios might look like, but the decisions taken on what is modelled and what assumptions will guide that modelling are matters for the Treasury.

Senator COLBECK: What is the extent of the contingent from the department? How many people would you have working on this process at the moment or have seconded to the current arrangements?

Mr Schwager: I would have a group of up to four and possibly five people working on various different bits of advice on the government's deliberations on the carbon price. It depends particularly on workload, which varies a bit from week to week, but that would be a rough estimate.

Senator COLBECK: So you would have a core team and second people in and out as you needed them for expertise in various areas?

Mr Schwager: That would be a fair enough assumption, yes.

Senator COLBECK: Minister, we have heard from a number of your colleagues—I do not think I have actually heard you say it—that this is about attacks on the top 1,000 emitters. How are we going about measuring the impact back down through the rest of the economy?

Senator Carr: The modelling is undertaken by the climate change department in consultation with the Treasury. The assessments that have been made by the climate change minister have been on the public record.

Senator COLBECK: But surely other businesses in the system will be affected.

Senator Carr: We have understood that the question of the introductory price and then the ETS will have a broad range of effects on different sectors of the economy, affecting different numbers of companies within that process. Just as in the last scheme, there was the CCAF arrangement—that is, the Climate Change Action Fund arrangement—to cater for businesses outside of the top group of emitters of trade-exposed emissions.

Senator COLBECK: Above the designated threshold, the government said.

Senator Carr: There were a number of questions about that. But I have absolutely no doubt that there will be additional measures to provide support for the transformations that are required to secure an economy with a much lower carbon footprint. We have seen already that the government has made statements about the level of support available for industry versus the level of support available to households. Within that context, we would see something in the range of 46 or a little bit more perhaps—it is about that sort of level—in indicated support for industry. We have said that a majority of support will go to households and that leaves a very substantial amount of resource to be distributed throughout companies. That process will become clear over the next month or so as the government finalises its position. Remember that we have indicated that we will have legislation in the parliament in a very short period of time. All of these details will be explained and highlighted. No doubt, we will be arguing the toss about these as the matter is dealt with quickly through the parliament.

Senator COLBECK: Have you had a look at the operation or the impact of a carbon tax in any other jurisdictions?

Senator Carr: There is work being done at the moment by the Productivity Commission on that issue.

Senator COLBECK: I understand that.

Senator Carr: We will wait upon their report before I have anything to say on the matter.

Senator COLBECK: So the only work that has been done around that area is—

Senator Carr: There is a range of work that is available to government and that goes to international measures that have been undertaken to date. There are many countries that have different climate change policies that are all aimed at reducing emissions. Broadly, I am familiar with that work. However, in terms of what the government has specifically commissioned, it asked the Productivity Commission to look at these issues. I will wait upon that report.

Senator COLBECK: I was just trying to establish whether the department was doing anything at all other than that. I knew that that work was going ahead. I think it is due to government in the next couple of days.

Senator Carr: I indicate that the department does provide substantial advice as part of the normal deliberations of the cabinet processes. I have been kept very well informed on the range of measures that are available.

Senator COLBECK: Has the department done any work, for example, looking at the EU policies?

Mr Paterson: As a matter of course we examine a whole range of activities to ensure that we are appropriately informed to provide advice to the government. We have not been commissioned by government to do a piece of work in relation to comparisons with international regimes. Clearly, well-informed officers providing advice to government on this complex area understand the context in which we are operating and the different approaches that have been taken internationally. Have we provided advice to the minister in relation to some of these issues: yes. Can I go into the detail of that advice: no. Have we been commissioned to do a special piece of work for government on that: no, we have not.

Senator COLBECK: So you would be aware that the steel industry has a lawsuit running in the EU in relation to the implementation of its carbon initiatives?

Mr Paterson: I do not know that I would have characterised it in quite that way, Senator.

Senator COLBECK: How would you characterise it then?

Mr Paterson: There are a lot of developments going on, all of the detail of which I do not have to hand, in relation to approaches that have been adopted here and elsewhere. But am I aware of a lawsuit being pursued by the steel industry against arrangements in the EU: no, I am not.

Senator EGGLESTON: Did you say no?

Mr Paterson: I said no, I am not.

Senator Carr: Individual officers may well be more aware of that detail.

Senator COLBECK: Is there anyone in the department who is aware of what is happening? It would be a reasonably significant development, I would have thought.

Mr Lawson: There are quite a lot of aspects of EU and British policy on carbon. We have looked at reports from companies. Some of them are getting positive benefits because their free permits are higher than their requirements and things like that. We have talked to the Australian steel companies about their perceptions about what is going on overseas in the various programs. I know there were specific problems with the implementation of phase 2 of the EU scheme and I am sure a lot of that is in court. I am not aware of whether they are specifically steel company court cases.

Senator COLBECK: My understanding is that the steel industry is suing the EU for the implementation of its carbon tax.

Mr Lawson: I think that is part of a wider issue about the implementation of the tax.

Senator COLBECK: I was just surprised that there was not some awareness of it.

Senator Carr: I understand that there has been a dispute with the EU commission in regard to aspects of the scheme. You use the term 'litigation'. I think we can get hung up on these sorts of terms. I understand that there has been a dispute.

Senator COLBECK: If you want to downplay it, you call it a dispute. I am just interested to know what it is and what you know about it. That is the point of the question.

Senator Carr: What I know about it is in public press reports on the matter.

Senator COLBECK: Has the department maintained an updated list of businesses that have been downsized or that have closed down their manufacturing operations in the country?

Mr Paterson: We have intelligence in relation to changes that go on in the marketplace. I would not characterise it as maintaining a list of businesses that have been downsized.

Senator COLBECK: So you do not maintain a list of businesses that might have—

Mr Paterson: We maintain a lot of material in relation to impacts on the sectors that we have a responsibility for. But, as I said, I would not characterise it as a list of companies that have been downsized.

Senator COLBECK: Or closed.

Mr Paterson: Yes. But we would have material in relation to a whole range of businesses. They are not exclusively within the manufacturing sector, nor would I suggest that it is a list of all those who may have either downsized or closed.

Senator COLBECK: So you have a list but not necessarily a comprehensive one?

Mr Paterson: We have material. I would not say it is a list of those who have been downsized or closed.

Senator COLBECK: How do you characterise 'material'?

Senator Carr: I think what the department does from my perspective is provide me with advice on the state of the economic conditions across a range of sectors, not just in manufacturing. That can be in a range of forms, from ABS statistics through to individual reports of individual companies that have approached departmental officers. We have a regional office system, so there is a whole series of intelligence gathering that is provided through our innovation councils, Enterprise Connect and AusIndustry. There is a very wide network that I expect this department to maintain in terms of advice to government about the state of economic conditions. In many respects, officers are able to act as a bellwether of what is occurring even before official statistics are published insofar as they are actually directly engaged with enterprises on a day-to-day basis.

Senator COLBECK: We might come back to you on notice to deal with that. Has the department been given any advice about whether the cost of the government's carbon tax will need to rise over time?

Senator Carr: Have we been given advice?

Senator COLBECK: Yes.

Mr Paterson: Can you try to rephrase the question, Senator Colbeck? Obviously, there is a range of views in the marketplace. Professor Garnaut, by way of example, has views in relation to what should happen to the carbon price over time. When you say, 'Have we been given advice', I am not sure where that might take us. Are we aware of views about price moving over time: yes. Has the government made a decision on how it will structure the scheme that it proposes: no, it has not finalised its decisions.

Senator COLBECK: I understand that side of it, Mr Paterson. If and when you get to a market situation, the market is going to decide that anyway.

Mr Paterson: Correct.

Senator COLBECK: But you have an intervening period. I am just wondering if there has been any work done in respect of strategies on that.

Mr Paterson: Have we looked at various arrangements that might apply and have we provided advice on elements of price variability over time: yes.

Senator Carr: Madam Chair, I just indicate that I have another commitment concerning cabinet committees and processes this afternoon. Senator Sherry has agreed to stand in my place. I should be back after the dinner break.

CHAIR: Thank you, Senator Carr.

Senator PRATT: I want to ask about small business support services in disaster areas. I understand that there has been some work in the area.

CHAIR: We have a session for small business later in the evening.

Senator PRATT: Okay. I beg your pardon. I will leave that one till later.

Mr Lawson: Small business just had a slight coronary.

Mr Schwager: I was going to have to get my staff to learn to run faster than me.

Senator PRATT: I do note that Senator Sherry—

Senator Sherry: I am here filling in for Senator Carr's responsibilities at the moment.

Senator PRATT: Yes, I do understand that. But I did note that you had some involvement in that announcement at the time. Buy Australian at Home and Abroad is a recently announced initiative of about \$34.4 million expanding some of the government's current initiatives around the supplier advocates, Enterprise Connect and access to major projects. I am interested to know what is meant by 'abroad' in those announcements.

Mr Lawson: Many major projects in Australia are designed to procure from abroad, overseas. So to participate in supply chains for even Australian projects you have to participate in a global supply chain. That is where the 'abroad', or overseas, came from.

Senator PRATT: But that sounds like you are telling people to buy Australian at home instead of going abroad. I am not sure where the 'and abroad'—

Mr Lawson: No, sorry. The program is about trying to link Australian suppliers to resource projects.

Senator PRATT: So they could be overseas resource projects that Australian companies or anyone else may well be pursuing?

Mr Lawson: Yes, because in a number of activities you are unlikely to be able to just sell to an Australian project. You need to be part of the qualified suppliers for Chevron around the world, not just Chevron in Australia.

Senator PRATT: With respect to that, it does seem to frame those policies in a new way compared to how it has been done previously, where it has been seen largely within a local context. Can you explain that in a bit more detail?

Mr Lawson: The world is globalising and consolidating, so in many of the sectors that we deal with a few large multinational companies are becoming increasingly important. In the resources sector obviously BHP and Billiton amalgamated, they took over Western Mining Corporation and they look at other projects. But this is also true elsewhere. In the aerospace sector 50 companies in 1980 are now five. In the pharmaceutical industry the names of the companies are getting longer and longer as they amalgamate. They are all looking for global suppliers, and Australian companies need to be part of global supply chains if they are going to be competitive and stay in existence. We have been trying to move our processes away from a concept in the past of import replacement to a concept of participating in global supply chains. We have worked on the Joint Strike Fighter project in the defence sector on those. The Industry Capability Network has moved, over some years, from looking at import replacing to actually placing—the Western Australian Industry Capability Network some years ago supported a procurement process from London that was for a Western Australian project by placing somebody there for six weeks to help the procurers understand the structure of Australian suppliers and how to create a tender that gave the best chance for Australian companies to win some work on that. I think the change in this particular arrangement is that we are also linking it very closely with Enterprise Connect so that it is not only looking to that activity of trying to ensure that Australian companies get opportunities in those projects but also working through Enterprise Connect with the Australian companies to improve their capabilities through a supply chain improvement program.

Senator PRATT: What is the significance of the global supply chain elements of this? Clearly many WA companies are complaining that they are not getting a fair chance for work that is for large projects in states like Western Australia at the moment. But you are saying that this kind of program will educate them and help them skill up so that rather than just looking at it from the point of view of the scope of works for something local they will be participating in far more globalised supply chains?

Mr Lawson: Correct. It is very much the case that if you just look at trying to get work in Australia you may miss out. If the thing has been designed and procured from overseas you need to understand what is going on there, you need to try to link in with those supply chains and you need to meet the quality standards, the occupational health and safety standards—a whole set of requirements that global companies require. Some of those large companies are already engaging with people that they see as potentially ready for work; they are working with companies to try to qualify them to be on their supplier list. That is quite an extended process because each of those large companies has its own specific quality accreditation. They do not want accidents in their supply chain, so they go to an enormous degree of transparency looking at their suppliers meeting their standards. So the process that we are trying to do is to bring together through this forum the major procuring companies and the supplying companies more formally to get some strategic awareness of each other's needs, for us to support the various mechanisms—most of which already exist—to try to get them working coherently together to deliver outcomes for the Australian suppliers so that they can meet the standards, be educated and do some supply chain development work to achieve the quality and the throughput.

Senator PRATT: Are you acknowledging that international companies doing work here in Australia are reluctant to break down components of that work specifically for local

manufacturers to compete on them because they like to design the whole project in ways that do not suit Australian companies?

Mr Lawson: The fact of the matter is that people are trying to get a project up. They have limited management and it is a big, difficult, time constrained exercise, and the people who are doing the job will naturally use their established suppliers. Their shareholders want them to get the best, most competitive suppliers, but sometimes managers just go for a short-term solution of who they know. It simply takes time and costs resources to find out about those Australian capabilities. What we are trying to do is reduce those search and transaction costs for them to find the available suppliers. I also think there is a question of, in a sense, the social licence to operate. The large companies understand that if they do not have a better look round and are not seen to have a better look round then there is a loss of social support for those projects going ahead. I think many of them do actually understand that and do want to play some role in that. What we are trying to set up with this resources forum is an opportunity for them to step up to the plate and work with the suppliers to achieve that.

Senator PRATT: Yes. They are certainly in danger of undermining the varied skill base that they require in states like WA if this kind of work does not actually get to them.

Mr Lawson: Yes. We try to get the CEOs and the more senior people to engage because they have the long-term view. The person who is building the project worries about building the project; they do not necessarily worry about that longer term future, so the companies need to have a longer term view. Companies will naturally free ride on other people's investment in skills and training and things like that unless these issues are drawn to their attention.

Mr Paterson: Mr Lawson and his team have some track record of this in a number of areas. He mentioned aerospace earlier. If you want Australian companies to participate in the development of the Joint Strike Fighter, by way of example, they have got to be involved in the early design and development phase to be able to be involved in the production phase and the through-life support phase. You cannot design your input after the product comes to market. We are trying to take some of those skills that have been developed in other areas to try to enhance the capability of firms and their perspective. They cannot sit in a workshop in Rockingham or wherever and just expect those projects to come to them. They will need to be participants in the global supply chain if they are to be effective in relation to global resource development. So this project is not just about trying to find the opportunities and lower those transaction costs but also about enhancing the capability of the firms to participate and to take a longer term view.

Senator PRATT: Will some of those positions be based in Western Australia?

Mr Lawson: We expect so, yes.

Senator PRATT: What kind of timeline are we looking at?

Mr Lawson: We get funding from 1 July. The funding is for four years.

Senator PRATT: I want to ask about Commercialisation Australia. Out of interest, how long has Commercialisation Australia existed for? I just noticed a recent announcement that looks at some of the work it has done and states that since its existence it has invested \$45 million in 115 projects. I was not sure over what time scale that is.

Mr Ben-Meir: It started at the beginning of January 2010.

Senator PRATT: Okay. I had not truly appreciated that it was that short a time scale. It does seem like you have done quite a lot in that short period. Specifically, what is the total investment that has been made thus far?

Ms Kennedy: As at 30 April there had been 116 projects that had been offered funding, to a total of \$46.55 million.

Senator PRATT: What is the bucket of money looking forward over the next few years for commercialisation?

Ms Kennedy: Commercialisation Australia has been allocated \$278 million over five years for the first five years and then it will receive \$82 million annually thereafter.

Senator PRATT: After that five years?

Ms Kennedy: That is correct.

Senator PRATT: So we are scaling up somewhat from the \$45 million and then up again to the \$82 million?

Ms Kennedy: The \$45 million is the amount that has been allocated to projects. They are funded over a number of years so it does not just come out of one financial year.

Senator PRATT: Okay. So that \$45 million to 115 projects is included in that \$278 million in the forward—

Ms Kennedy: That would be correct.

Senator PRATT: That makes more sense. Can you contextualise where biotech is sitting within Commercialisation Australia currently?

Mr Ben-Meir: Biotech comprises approximately 29 per cent of the grants to date.

Senator PRATT: And are they particular sectors of biotechnology? That is clearly quite diverse.

Mr Ben-Meir: It is diverse. There is no particular sector that we focus on.

Senator PRATT: Are you able to give me an indication of the diversity of those biotechnology projects that have been successful thus far?

Mr Ben-Meir: It covers a full spectrum from devices to new drug development, platform technologies—it is across the spectrum.

Senator PRATT: Thanks. I will go away and find out a bit more because I do not even know what a platform device is but I—

Mr Ben-Meir: It is not a platform device; there are underlying technologies which are used to then develop other types of drugs rather than themselves being a drug.

Senator PRATT: Okay; that is all right. I do not need to waste time at estimates just educating myself about such things. I have some questions about the Clean 21 network. How long has Clean 21 been operating thus far?

Ms Urquhart: Clean 21 consists of five initiatives, two of which Enterprise Connect has specific responsibility for. Therefore I can talk specifically to those two initiatives. The first is the Clean 21 Technology Innovation Network, which has been in place since 1 January this year. Basically that is a network of expert business advisers across Australia led by our Clean Technology Innovation Centre. Specifically they support work done by all business advisers

in every business review that we deliver. Since 1 February this year every business review that we have delivered has drawn on, for one particular module of the business review, a sustainability tool—

Senator PRATT: Yes, that is what I am interested in.

Ms Urquhart: which specifically addresses sustainability issues in respect of the firms we work with. The network is the expert network backing up that sustainability module. Invariably there will be issues that arise that require expertise, so the broader cohort can then draw on the expertise in that network.

Senator PRATT: In relation to sustainability tools, clearly that cuts to people using their resources more efficiently in most instances—is that correct?

Ms Urquhart: Absolutely, yes.

Senator PRATT: So that is water, electricity—but also innovation around, I suppose, a whole range of other manufacturing and processing inputs. Is that correct?

Ms Urquhart: Absolutely. And I should say that in respect of the business reviews undertaken by Enterprise Connect you could say that these issues have always been addressed. It is just that under the Clean 21 initiative we have had the opportunity to develop a specific tool. That has two advantages. One is obviously to establish a minimum best practice in terms of the issues addressed with the firms that we work with. The second is an unprecedented opportunity for us to gather data in respect of these issues and the firms that we work with.

Senator PRATT: So to what extent are businesses experiencing success in reducing costs because they are reducing waste as a result of their participation in this program? What findings are you getting from participation?

Ms Urquhart: In respect of the use of the sustainability tool and the data that it gathers it is early days yet. As I say, it has been in place since the beginning of February. I would expect that in 12 months time we would start to be able to talk in some useful way about the trends that we identify amongst those firms that we work with.

Senator PRATT: I will look forward to asking about that in the future. What connection will there be to things like the smart grid and potentially even things like the NBN in relation to businesses being able to manage electricity use and connecting the electricity network and the information technology network?

Ms Urquhart: In a general sense the point of the tool is to deliver to the business advisers across Australia all sorts of best practice examples across all the different subjects that you might address under this very broad topic, whether it be water or electricity—that there be relevant best practice examples that can be drawn to particular individual firms' circumstances, but then backed up, obviously, with the expertise of business advisers who specialise in this area.

Senator PRATT: Thank you very much.

CHAIR: Mr Paterson, is the space policy unit in this section or is later in the science and research area?

Mr Paterson: It is in this outcome.

CHAIR: I have some questions about that? Dr Green, first of all could you give us an update on where we are with the research grants that are going out.

Dr Green: We have announced three rounds of the program so far. Eleven grants have been awarded, with a total value of \$34.2 million. There is \$6.14 million of the \$40 million allocated to the program remaining. We expect that to be allocated in the fourth round. The fourth round closed for applications a month or two ago, and we are just in the process of finalising the assessment of those grants.

CHAIR: Do you have any indication of when they might be announced?

Dr Green: We are expecting the minister to announce those grants in the near future.

CHAIR: I am aware that those grants were meant to foster international connections. Can you advise in respect of those grants but also generally in connection with the space policy unit what liaison has gone on with international organisations or businesses?

Dr Green: Yes. I think eight of the 11 grants so far awarded have included international collaboration. I think that is a significant level of collaboration. I am not sure specifically what you want me to expand on there, Senator.

CHAIR: I am interested in whether there has been any contact from international organisations seeking more information or seeking business cooperation through your unit—or is it still on a business-to-business basis?

Dr Green: We have had a number of engagements with agencies such as the European Space Agency, NASA, and the Italian Space Agency, and with individual firms that have been interested in exploring the opportunities presented by the program and in capability generally in Australia. I think it is fair to say that the program and the initiative has raised the profile of Australia among international agencies and companies in that area.

CHAIR: We are towards the end of the provision of the grants. This committee recommended in the space report the establishment of the unit, the stimulation of industry in this area and the making of those international linkages. I suppose the next step is to create a stronger business around those space research initiatives and industry. Has there been any discussion about where the unit goes and where the government goes from here?

Dr Green: I think it is important first to acknowledge that the funding is over four years and the four rounds of funding—we expect to announce the fourth round shortly—will commit funding to those projects that goes on for a number of years as they develop. So whilst we have commenced a number of projects—the 11 that have already been announced and the ones that will be announced shortly—they will be continuing to build the linkage and undertake their work over the course of the grant over the coming years. As you may recall, the funding that was allocated in the 2009-10 budget was funding for four years, so that is funding through till June 2013. Further decisions of government will have to be made over that time frame for that work to continue.

CHAIR: Have there been any particular areas of the industry or of space science that have stood out in terms of the quality of the applications and the number of grants received? For example is it in the satellite area or the area of any other space science?

Dr Green: Consistent with the advice from the committee that you chaired, we have expressed a commitment to focus areas being the applications of economic, social and

national security importance for Australia—that is, earth observation, telecommunications and position navigation and timing applications. Having said that, the program guidelines state that the purpose of the program is to foster areas of strategic importance—the ones I have just mentioned, for example—and areas of excellence. There are areas of excellence that do not necessarily fall into that category, and we have supported a number of those. I do not think I would particularly like to comment on general areas, given that only 11 grants have been announced. They are all unique in a way.

CHAIR: Regardless of the actual grants, is it apparent that there are any areas where Australian industry seems to be going forward—any particular areas of space science?

Dr Green: There are certainly some areas of significant capability that we have been able to support. The hypersonic scramjet work at the University of Queensland involved with DSTO has been supported over a number of years and has got support again through this process, and that is good to see. That is obviously an area where there is a lot of international interest, and we have been able to support that work through a different stage. The involvement of the ANU-led consortium in NASA's GRACE Follow-on mission is another exciting opportunity that, as it goes forward, will see ANU and Australian developed laser ranging technology on board a NASA spacecraft in a very important climate change related mission. So there are some areas where we are seeing real interest and real niche capability and where we hope there will be ongoing opportunities for those collaborations to flourish.

CHAIR: I had hoped for a South Australian mention.

Dr Green: There is another South Australian project that I could perhaps turn to. There is an education development project at Flinders University looking at Place and Space: Perspective in Earth Observation. There is a University of South Australia project—the Southern Hemisphere Space Science Summer Program. Another University of South Australia project is the Space Based National Wireless Sensor Network. That is nearly \$5 million and involves international collaboration with COM DEV from Canada, I believe.

CHAIR: I have forgotten the name of them, but there were meetings between government departments that occurred I think about once or twice a year. Are they still continuing?

Dr Green: The Australian Government Space Forum? Yes, it continues to meet.

CHAIR: When did it meet this year?

Dr Green: I will have to take that on notice.

CHAIR: Thank you.

Senator EGGLESTON: I have some questions for Commercialisation Australia. In answer to a question on notice from the previous estimates round, we were told that Commercialisation Australia employed 40 ASLs for 2009-2010 and 50 ASLs for 2010-2011. On top of that, there were 13 case managers for 2009-2010 and 15 case managers for 2000-2011. I just wondered if you could tell me if those figures are actually correct.

Mr Ben-Meir: The ASL numbers are broadly correct, but the number of case managers, 15, which was nominated in that answer and which was correct at the time, has now increased to 22.

Senator EGGLESTON: So there were 22 for 2000-2011.

Mr Ben-Meir: That is right now. When those answers were given, that was accurate at the time.

Senator EGGLESTON: So this is the current figure. You said that the ASL numbers were broadly correct. How broad is broadly?

Mr Ben-Meir: They are correct in terms of expenditure, but the actual number of people varies based on workload.

Senator EGGLESTON: There have been a total of 117 grants awarded so far, I understand. Is that the case?

Mr Ben-Meir: It is 116.

Senator EGGLESTON: Okay. How many of the staff have been employed at the EL1 and APS6 levels and what would an EL1 or APS6 at Commercialisation Australia generally do? Broadly, what is their job description for a typical day at work?

Ms Kennedy: We have to take the question on notice with regard to the specific allocation against the EL1 and the APS6 levels. The ASL allocation that is quoted is the overall allocation to the program.

Senator EGGLESTON: What I was asking for was what work they do for the day. Are you able to give us some general idea of that? It is not numbers—it is about what they do during the day.

Ms Kennedy: The EL relates to the executive level 1 position, which is the equivalent of an assistant manager. The responsibility varies in relation to where they are placed, whether it is within the policy division or within AusIndustry. It could relate to policy responsibility or program delivery responsibility. At the APS6 position, within AusIndustry that would be a customer service manager who would be dealing with customers under the program.

Senator EGGLESTON: Can you tell me exactly what case managers do? I have been told that they do play quite an integral part in managing the individual recipients of funding. Is that correct?

Mr Ben-Meir: The case managers initially are responsible for assessing applications for grants. They also provide some feedback to applicants in order that they can finalise their applications. Once the applicants are successful and have been awarded a grant, the case manager then performs an advisory role to assist those participating companies in achieving their commercial objectives.

Senator EGGLESTON: It was revealed recently that NBN Co has more staff than numbers. Given that you have collectively had about 120 employees and awarded only 117 grants during the two years of your operation, it seems that you have a very similar problem. Would you agree with that?

Mr Ben-Meir: I am not sure where you get 120 employees from.

Senator EGGLESTON: That was calculated from the numbers in the first question under this tab—40 plus 52.

Mr Ben-Meir: It is not cumulative. That is for the given year. It is not cumulative, so you do not add them.

Mr Paterson: ASL is the average staffing level. So, if it is 50 or 52 at a point in time, that is the average staffing level that exists at that point in time over the year.

Senator EGGLESTON: You are saying that in one year it was 40—

Mr Paterson: And then it increased to 52.

Senator EGGLESTON: And then came down to 13 and then went to 15?

Mr Ben-Meir: No, the case managers—

Mr Paterson: The 13 and 15 are case managers and they are under contracts.

Senator EGGLESTON: So what you are really saying is that the case managers are separate staff. Is that what you are saying?

Mr Ben-Meir: They are external contractors; they are not public servants.

Mr Paterson: So the original proposition of your question falls away.

Senator EGGLESTON: Do the case managers have an important role to play?

Mr Ben-Meir: Yes, they do.

Senator EGGLESTON: At the time that answers to questions on notice from the last round of estimates were provided, you disclosed that 40 incidents involving potential conflicts of interest for board members had arisen and at least 17 of these related to successful funding applications. Have there been any further potential conflicts of interest identified since that time? If so, how many have there been in each category?

Ms Kennedy: I might start with that. There is always the potential for conflicts of interest to arise. The department has taken the view that it is important that we have industry people skilled in assessing applications and therefore it recognises, in fact, that conflicts of interest are always going to arise. The way it manages that is that it has a very robust disclosure of interest process in place. The ANAO has previously deemed the Innovation Australia board's disclosure of interest processes as best practice. Members are required to disclose any potential interest that happens by way of an early agenda for a meeting being circulated with, obviously, minimal information with regard to each application. The members then disclose an interest, then a determination is made as to whether it is material or immaterial. In some cases, when it is deemed material, it could be not necessarily because it is an actual conflict but in fact because it is a perceived conflict. We take a very conservative approach and therefore we are more likely to deem a member's interest as material even if there may be a perception of a conflict as opposed to an actual conflict.

Senator EGGLESTON: Can you give the committee an example of a perception of a conflict? What would come into play there? Would this be ownership of shares—

Ms Kennedy: No, ownership of shares is a material conflict. A perceived conflict might be because an individual has known somebody previously or worked with them in the past.

Senator EGGLESTON: Or might have a family member employed by an associated company or something like that?

Ms Kennedy: Potentially. There is a range of reasons as to why it would be deemed potentially material.

Senator EGGLESTON: On notice, could you please provide us with a list of each of the conflicts of interest for the individual board members respectively? Would you be able to do that for the committee? You must have some record of—

Ms Kennedy: We certainly maintain records. The record is made when the disclosure is made and it is tabled at the meeting. Members, if they are deemed to have a material conflict, are excluded from receiving the papers and also from participating in the meeting. Those conflicts are minuted in the meeting and it reflects when a member leaves the room and when they return. The reason I hesitate is in terms of the level of detail of information that you are seeking.

Senator EGGLESTON: Suppose we just deal with the material conflicts.

Mr Paterson: Can we understand the purpose for which this might be used? Obviously, we have, as Ms Kennedy has indicated, very robust processes in place to ensure that there is no question in relation to the assessment process being undertaken, be it through Innovation Australia or through Commercialisation Australia. A lot of people see conflicts through a different prism or the declaration of a potential conflict as being in some way wrong or inappropriate, whereas we want people who have an interest to be people who can give us expert advice. I just do not want to see a list of people who have declared a potential conflict or a conflict where, by our robust processes, they are deemed to have a material conflict that in some way singles out those individuals. I am happy for us to try to provide the information, but I am very cautious about the public provision of the list of that nature and how it might be used.

Senator EGGLESTON: I understand that caution. We are just trying to get a feel for the level of conflicts of interest. Minister, I do not know whether you can answer this. Do you think the minister would be disturbed by the quantity of these cases and could you give us a sense of when, in your mind, it might be necessary to step in and make procedural or personnel changes in the light of all of these conflicts of interest? Is there a point or a particular number of cases where you might feel it was necessary to make changes?

Senator Sherry: It is fairly hypothetical.

Senator EGGLESTON: It is a bit hypothetical, but we are just trying to feel out when you would see it is important.

Senator Sherry: It is not for me to indicate on behalf of my colleague Senator Carr.

Senator EGGLESTON: Absolutely—I understand that.

Senator Sherry: I would really have to take that on notice.

Ms Kennedy: The other provision that prevails is that, for the Commercialisation Australia board, there are seven members of the board and a quorum for a decision is four. Even if we have conflicted members, the board is still able to take decisions. In the event that there were a number of members that were conflicted and that meant that they could not form a quorum, there is further provision to refer that matter to the full board of Innovation Australia.

Senator EGGLESTON: This all arises, as I said earlier, because, in answer to a question on notice from the last estimates, you disclosed that 40 incidents involving potential conflicts of interest for board members had arisen and at least 17 of these related to successful funding

applications. It is because of that that we are trying to draw out little more information, not because we feel that there is necessarily an inherently serious problem there.

Mr Paterson: But you did then follow that up with a question to Senator Sherry and through Senator Sherry to Minister Carr about whether that level of declaration of interests might warrant personnel changes or the like. So there is an inference almost that somehow or in some way the declaration of interests from people who have interests—and we want them to have interests—is cause for concern. I cannot answer for Senator Carr, but certainly from my point of view I can say that those numbers do not concern me. We want people on the Commercialisation Australia board and the Innovation Australia board who are people who can bring expertise. You expect them to know people. You expect them to have commercial connections and other connections with people who might be in the innovative space. So it is not surprising that you will have people who have interests in this area. As I said, I cannot speak for the minister, but certainly the numbers that are before you do not cause me any concern at all.

Senator EGGLESTON: I can understand what you are saying and I agree that Minister Sherry is unable to answer this question, because he is not the relevant minister, or to make a comment about it. But we are curious to know how all of this works in practice. We have been told previously that any board member who has a potential conflict of interest associated with an individual application leaves the room, as you have just said, during deliberations on that application. We have also been told that all of the individual applications are ultimately ranked by the board members against one another. So, at some point—and particularly given the extraordinary number of these cases for the current board—potentially, conflicted board members by definition have to make decisions involving companies in which they have a potential interest, don't they? It would seem so. So we are just trying to get a feel for this in the public interest. We are not saying that there is a problem there; we are just trying to flesh it out a bit.

Ms Kennedy: I think it is important to reiterate that, at any stage of a process where a member has a material interest—not a potential interest; it has been deemed to be a material interest—they do not participate in an aspect of that application.

Senator EGGLESTON: You have said that. That is important to know. But we are trying to get some sort of feel for scale. There was a public announcement on 3 March about a new round of grant approvals. On how many occasions after they were first posted were the web page and/or accompanying attachment on the minister's website and details about the announcement of the grants changed and why? Changes were made—what was the reason for that? We know that there were at least four separate updates or edits to these pages on the website. While there is nothing sinister in this, we are just trying to work out why the changes were made. We are feeling around.

Mr Ben-Meir: To which websites are you referring?

Senator EGGLESTON: The minister's website.

Mr Ben-Meir: The minister's website is updated whenever there are grants approved. So it is going to change from time to time.

Ms Kennedy: So the difference there—

Senator EGGLESTON: This is approvals—indeed. Apparently, there were several changes made to the website. There were at least four separate updates or edits to these pages after approvals were made. We just wondered why that occurred.

Ms Kennedy: Mr Ben-Meir talked about them being updated. When the announcements are made, the announcements refer to the offer of a grant. There are a small number of occasions—in this case, probably up to four—where, having received an offer, a company is unable to execute a grant agreement, usually for some form of commercial reason, with a project either not proceeding or unable to proceed at that particular point in time.

Senator EGGLESTON: We have some emails here noting updates and changes. This one was from either Senator Carr or Senator Sherry on 3 March. There are others on 8 March at 11:39 am and 1:24 pm; and at 1:14 pm on 10 March. So these upgrades do occur. We are just looking for an explanation.

Mr Paterson: For those specific ones that you have just read onto the record, we will check the detail in relation to those and see if they accord with the circumstances Ms Kennedy has just outlined.

Senator EGGLESTON: Thank you very much.

Senator COLBECK: I would like to go to the car industry now. Unfortunately, we do not have the minister here, but I want to talk about the comment from the component manufacturers that the carbon tax might have a significant impact or a material impact on manufacturing competitiveness in the car industry. PricewaterhouseCoopers has done some modelling indicating that a carbon price of between \$20 and \$30 a tonne—that is, I understand, speculative, but it is around the parameters that we have heard spoken about publicly by government—will cost the industry up to \$46 million a year even with compensation. Does the department have a view on that number?

Mr Lawson: Because the program has not been decided yet, and there is a whole range of interrelated factors that need to be taken into account, they have done some work on a hypothetical. It does bear analysis as to what actually will be the government's decisions in the area. So it is hard to make a judgment about that.

Senator COLBECK: Likewise, we do not know that it is wrong, do we? There is a lot of speculation going on at the moment. A lot of people are trying to work out what the impact might be. I understand that there is a process that is being conducted by the government. While you can say quite legitimately that it does not bear any relationship to what is happening, you perhaps might be more informed than some of us. But it is not necessarily wrong yet, because we do not really know what is coming out either way.

Senator Sherry: Is that an excuse for making up all of these claims—you personally believe—

Senator COLBECK: PricewaterhouseCoopers has done the calculation of the impact.

Senator Sherry: that the world is going to come to an end?

Senator COLBECK: I am just asking whether there is any sense about how close that number might be. That is with compensation. Without compensation the number is over \$80 million on an annual basis.

Mr Paterson: I do not think that we can express an opinion on this, Senator.

Senator COLBECK: You cannot say it is wrong and you cannot say it is right?

Mr Paterson: We cannot express an opinion. I am not going to have you put those words into my mouth. I am not saying that we cannot say it is wrong and we cannot say this right; I am saying to you that we cannot express an opinion.

Senator COLBECK: Or you will not express an opinion, perhaps? Can I put those words into your mouth?

Mr Paterson: Feel free.

Senator Sherry: Can't and won't.

Senator COLBECK: You have done one better. But it is likely to have an impact, so what we are now arguing about is the quantum?

Mr Paterson: Senator Carr I think before his departure responded on an earlier question on this. He indicated that it will have a variety of impacts and there is a variety of measures that the government is considering. When we know the detail of the scheme to be announced, that is the time for examination of the sorts of issues that you raise.

Senator COLBECK: So what you are saying is that, until we have a sense of the decision and what mitigating programs the government might put in place to deal with that—

Mr Paterson: To model something like that, you have to make assumptions. Those assumptions could be on the money or they could be wildly inaccurate. They could be foolish, they could be informed, they could be any number of kinds of assumptions. Once you have made the assumptions then some of the consequences flow from those assumptions. We do not comment on the nature of the assumptions and I am not asserting that they are foolish or on the money; I am just suggesting that that modelling is done on a set of assumptions and it can be tested once the nature of the scheme is announced. But you are right—there is a lot of commentary and a lot of speculation on it. That is not surprising in the circumstances. But, in reality, we can only really examine the detail of it once the nature of the scheme and the nature of the compensation arrangements are announced.

Senator COLBECK: Have you had a look at PricewaterhouseCoopers modelling?

Mr Lawson: We have.

Senator COLBECK: So, given that you have had a look at it, can you actually refute it?

Mr Lawson: Again, the nature of modelling is that you put in a range of assumptions, as you talked about before, and draw some conclusions—

Senator COLBECK: And I acknowledge that the assumptions are important, because I have asked questions about accessing the assumptions.

Mr Lawson: In those circumstances, the results of modelling depend on the assumptions you put in, the structure of the modelling work you do and the understanding you have of other mechanisms that the government may or may not adopt as part of the overall package. It is really quite difficult to fairly draw a conclusion or make a statement about somebody's modelling work that has been done outside of that framework.

Mr Paterson: To respond to your question: we would have to make assumptions about the assumptions to be able to make that judgment. I do not think we are in a position to be able to do that.

Senator COLBECK: This is going to get us into a very nasty circular argument, I can see.

Mr Paterson: I am not trying to take us there.

Senator Sherry: I had detected that.

Senator COLBECK: Again, from what you are saying, the full set of assumptions that are being made as part of the modelling that PricewaterhouseCoopers has done, which you have had a look at, are not available to you to make a valued assessment?

Mr Paterson: I am saying that you can only make an assessment of that relative to a scheme that might be introduced. If we do not have the scheme that might be introduced then we have to make assumptions about their assumptions. There is modelling being undertaken by the Treasury, commissioned by the government, with a variety of scenarios. That modelling will be published and the assumptions that stand behind that modelling will be published. But I do not think it is appropriate for us to speculate on the assumptions made by an outside group about the consequences of a policy that has not yet been announced.

Senator COLBECK: There has been a lot of work done on carbon mechanisms, obviously, and it has been a topic of discussion, study, costings and modellings over a period of time now. There would be some base information that would be in the system that could give you a sense of where things might go.

Mr Paterson: Clearly the Treasury—and this has been raised on a number of occasions previously—is undertaking a series of modelling exercises with a series of scenarios. That material is not yet available to us, nor to them. So it is very difficult to make judgement calls in relation to somebody else's modelling that makes assumptions about a policy not yet announced by comparison with modelling on a whole-of-economy basis that has not yet been delivered by the people who are undertaking it.

Senator COLBECK: But by the same token the modelling that PricewaterhouseCoopers has done, as you have quite correctly said, is done based on a set of assumptions to reach a figure. Okay, we have established that it may be different or it may be the same. It depends on the final outcome of the Multi-Party Climate Change Committee and the policy decisions that the government makes. But it is based on a set of, I would think, relatively well-educated assumptions about a carbon price within a certain range to come up with, again, a range of impacts based on inputs that PricewaterhouseCoopers have put in their modelling work.

Mr Paterson: You can understand our caution, Senator. If we were to pass judgement in relation to their assumptions, others might infer that that was an indication as to what the design elements of the government's announced policy were going to be. We cannot make that assumption. Nor can we have that inference applied to any examination that we might have undertaken in relation to somebody else's modelling approach. That is my caution. That is why we are not in a position to respond to your question. I understand why you are asking it but the potential for mischief to be applied to any assumption or any commentary that we made in relation to somebody else's modelling is too high.

Senator COLBECK: Understanding that a lot of these models are common and it is the assumptions in the material that is fed in at the base of a model—they may very well be using the same model the Treasury was using—I do not know because I have not read it and I am not sure exactly which model Treasury is using this time round. It may be that they are using

similar models and the inputs will determine the results at the end of the day. I suppose I just wanted to establish that PricewaterhouseCoopers would have an established and relatively reputable process to deal with and then they would make some assumptions and inputs into that and get the numbers that have come out the other end. Likewise the government process will do something similar.

I want to go through the government's modifications to its initial promises since 2007 in relation to overall funding. I will leave out the carbon tax as an issue to start with. The Green Car Innovation Fund has been cut from \$1.3 billion to \$422 million, a cut of \$878 million. You have got cash for clunkers, which arrived and left at \$429.7 million and the LPG Vehicle Scheme at \$96 million. That is of the order of \$1.4 billion in broken promises from where we started in 2007. Those numbers about line up, don't they—\$1.437 billion?

Mr Paterson: You have characterised them as broken promises.

Senator COLBECK: I did not expect you to agree with my characterisation.

Mr Paterson: I do not respond to that characterisation. The order of magnitude that you described in relation to the adjustments that have been made on each of those programs is right. But the characterisation of those changes is not something that we can comment on.

Senator COLBECK: If you add the PricewaterhouseCoopers number of \$46 million a year over 10 years, you are talking about a \$1.8 billion broken promise to the Australian automotive industry. You are going to dispute my numbers. We have just been through that. But—

Mr Paterson: I dispute the characterisation and I do not think that you can add a number based on some modelling to some program changes which do not take account of all of the changes that have been made. The Automotive Transformation Scheme has modified over the period of time that you are looking at and it provides significant support to the automotive and components supply industry. You cannot just pick and choose the elements of change that might have taken place and say, 'Therefore if you add the bits that I want to focus on, that means that it is a hit of this size', when there is significant change in relation to the automotive transformation scheme, by way of one example. I am happy for us to examine numbers that might have changed over time in relation to various programs. I am happy to do that on notice and respond to you. But we are not going to do it in the context of the characterisation that you describe. So if you want us to confirm the numbers in relation to the Green Car Innovation Fund changes, adjustments to the LPG Vehicle Scheme and the government's decision not to proceed with a program—we have never adopted the term 'cash for clunkers' but we know the program to which you refer—we are happy to take those three sets of numbers on notice, to just confirm them.

Senator COLBECK: I think you have confirmed them for me earlier.

Mr Paterson: Yes, I said it was of that order of magnitude. I was not suggesting—

Senator COLBECK: I was not trying to throw in any numbers there that—we can have our discussion or dispute or debate about characterisation. That is as it should be. But I think the numbers basically are—and I did deliberately leave one out in my initial characterisation—effectively are as I have stated.

Mr Paterson: They are certainly of the right order of magnitude.

Senator COLBECK: Again, it is disappointing that the minister is not here because I did have a specific question to him as part of that process.

Senator Sherry: He will be back later. You can just put it aside.

Senator COLBECK: I would like to deal with this as we are going through.

Senator Sherry: He will not be thrilled that I have pointed this out, of course, but he does not miss an opportunity to vigorously defend—

Senator COLBECK: I want to go to the design of the scheme and the Green Car Innovation Fund. Prime Minister Gillard said when announcing its abolition, along with some other programs, on 27 January this year that these programs were less efficient than a carbon price and will no longer be necessary. Yet Minister Carr's characterisation of these is as being integral to plans for the car industry. How do we line those two statements up? Is it that this particular program does not meet best practice as far as design of a program goes?

Mr Paterson: I think you are right to suggest that that is appropriate to put to Senator Carr. You are asking for a response to a comment that you have attributed directly to him. I do not think it would be appropriate for us to comment on a view that he may have personally expressed.

Senator COLBECK: Or one that the Prime Minister had expressed. That is fair enough.

Mr Paterson: And I am not going to contrast it with one the Prime Minister might have made.

Senator COLBECK: Who has been determining which grants approved and how much will be disbursed until now?

Ms Kennedy: Ultimately as program delegate I sign off on the final decisions in relation to the Green Car Innovation Fund applications, taking account, of course, of the advice from the Green Car Innovation Committee and/or the Innovation Australia board and/or government. Applications that are above \$10 million, after they have been considered by the Green Car Innovation Committee and Innovation Australia and recommended for support, are referred to government prior to the program delegate taking the final decision.

Senator COLBECK: Does referring to government mean referring to the minister for his approval or sign off?

Ms Kennedy: To cabinet.

Senator COLBECK: What about involvement from the Automotive Industry Innovation Council—have they been part of the process at any stage?

Ms Kennedy: No. Responsibility for the merit assessment of those applications falls to the Green Car Innovation Committee and/or Innovation Australia.

Senator COLBECK: I understand that there have been some further grants made since the last estimates but I just want to go back to some figures there. We were told following the hearing through answers to questions on notice that at the time the program was abolished, which was 27 January, there was \$900 million in the fund.

Ms Kennedy: That is correct.

Senator COLBECK: And we were told that the axing of the program would realise a saving of \$401 million—and I think that is the figure that is in the budget estimates paper. Over the life of the program a saving of \$401 million?

Ms Kennedy: That is correct.

Senator COLBECK: The total spent under the program would therefore be \$499 million?

Ms Kennedy: No. The amount referred to was the allocation under the program of \$499 million.

Senator COLBECK: So what is the difference between the allocation and the amount that is going to be spent?

Ms Kennedy: That answer was—

Senator COLBECK: I am just trying to find it myself.

Ms Kennedy: provided. It is question no. A68.

Mr Paterson: We have it here. We can read it onto the record if you want.

Senator COLBECK: No; I have actually found the answer. I am still digging after the same figure that I was trying to reconcile at the previous estimates.

Mr Paterson: Take us through it and we will try to respond. It was a \$900 million program. There was a \$401 million saving, leaving \$499 million. The answer to the question on notice provides the breakdown of the \$499 million.

Senator COLBECK: We started with a figure of \$1.3 billion. We took out, on 11 May 2010, \$200 million.

Ms Kennedy: In the context of the 2010-11 budget, yes.

Senator COLBECK: On 14 August 2010 we took out another \$200 million.

Ms Kennedy: As part of the election commitment.

Senator COLBECK: So that is \$400 million. So the revised total was \$900 million, less commitments of \$308 million?

Ms Kennedy: At the time of the previous estimates, yes.

Senator COLBECK: Further offers were made of \$5.7 million. That made \$313.7 million, which left a residual of \$586.3 million?

Mr Paterson: We said at that time of the last estimates, as I recall—

Senator COLBECK: You had applications on hand.

Mr Paterson: Yes.

Senator COLBECK: I was coming to that. That brought you back to \$478.3 million? Then savings were announced by the Prime Minister on 27 January of \$401 million. On my numbers that leaves \$77.3 million.

Mr Paterson: Why don't we work through the numbers you have just given, Senator, and try to come back to you tonight, just to square the—

Senator COLBECK: We are all furiously nodding our heads at each other as we go through the individual calculations.

Mr Paterson: But I suspect that they are point-in-time answers. We know that it is a program that was reduced from \$1.3 billion to \$900 million.

Senator COLBECK: Yes, there is no dispute about that.

Mr Paterson: There is no dispute about savings of \$401 million, and we have answered your question in relation to the remaining \$499 million. You are asking a series of questions on numbers at different points in time. What I want to do is try to reconcile the numbers that you have just used with the broad program numbers of \$401 million and \$499 million adds up to \$900 million, which is what was in the program after the two \$200 million reductions.

Senator COLBECK: Again, we are using the specific numbers that we have asked you about. I remember the conversation we had last time about each of those figures.

Mr Paterson: The \$499 million we have explained to you in answer to the question on notice.

Senator COLBECK: Yes.

Mr Paterson: And the \$401 million was the saving that the Prime Minister announced.

Senator COLBECK: Yes.

Mr Paterson: That adds up to \$900 million.

Senator COLBECK: Yes.

Mr Paterson: And that is how much was in the program.

Senator COLBECK: I understand that.

Mr Paterson: It was \$1.3 billion down to \$900 million, down to \$499 million, which we have explained in the answer to the question on notice, with \$401 million saving. But if there is a different set of steps that we need to look at in a different time frame we can try to reconcile those numbers for you. We will do that while we are here.

Senator COLBECK: I am happy to go through that. Can you outline for me how many green car innovation grants have been announced since the last round of investments? Have they included all of those that we talked about in that \$5.7 million?

Ms Kennedy: The Very Small Particle Company announcement was made on 29 March, the Nissan Casting Australia on 29 March and the recent offer in relation to Holden on 19 May.

Senator COLBECK: Was that about \$40 million?

Ms Kennedy: It was \$39.8 million.

Senator COLBECK: That is obviously more than the \$5.7 million that we talked about at the last estimates. That would form part of that \$108 million that was applications on hand that we talked about in February?

Ms Kennedy: Yes.

Senator COLBECK: Can you give us the numbers of each of the grants? It is \$39.8 million to Holden.

Ms Kennedy: That is correct. The Very Small Particle Company grant was \$2.090 million, GST exclusive. The Nissan Casting Australia grant was \$3.348 million.

Senator COLBECK: So there are obviously still some allocations in that \$5.7 million, I think, of further offers that were made—or have all of those further offers been taken up? That was the figure we had: offers that had been made at February was \$5.7 million. Have they all been taken up?

Ms Kennedy: I am hesitating because of the different points in time. There are still a further four to be announced.

Senator COLBECK: That is of those offers that were made but not announced as of February's estimates?

Ms Kennedy: They may include offers that have been made since then.

Senator COLBECK: What I am trying not to do is get caught up with double counting. I am trying to make sure that stuff that we sequence is not jumping from place to place. That is why I am trying to relate things to numbers that we already have on the record in relation to where our calculations come from.

Mr Paterson: It is quite possible, Senator, that at the time of the last estimates we provided you with advice on offers that were in train at the time, and it could be that the grant approved differed in value from the offer made at the time, depending on the conditions that were eventually settled. We just need to be able to reconcile the differences—it is always the problem when you do a point in time when things are in play. There are grants that we are working on at the present time that are not yet announced, so we are just trying to reconcile the differences. Once again, I am happy for us to try to work through—

Senator COLBECK: That is why I am trying to keep it in that particular contexts. Based on the figures that we have done from your answers, we are trying to make assessments of what is in play and what is not in play. We understand that some stuff is not announced. We do not necessarily need to see behind the numbers; we just need to know what the numbers are for the figures. As at estimates last time, you have told me that there were commitments under the program of \$308 million. There were further offers outstanding—and we do not know what they might end up being; that is fine—of \$5.7 million and applications on hand of \$108 million. That is where my numbers come from. They are your numbers at a point in time. Things might move within those amounts because of circumstances, allocations and negotiations during the time from offer to acceptance, or decisions not to take up an offer—all of that sort of stuff. I understand that that happens. I am just trying to get a sense of what has happened within those particular contexts. Unfortunately I cannot give you any more detail of what was in the \$5.7 million because I did not know. You could not tell me at the last estimates. And of course the same thing applies with the applications on hand. Obviously the \$39 million one made to Holden would be one of those on-hand jobs because it would not fit within the \$5.7 million.

Mr Paterson: Of the 5.7 that we mentioned on the last occasion, one of those has been announced, which is the Nissan Casting Australia grant. That was included in that number on the last occasion. The announced number is \$3.348 million. The other component of that \$5.7 million that we spoke of at the time has not proceeded at this stage.

Senator COLBECK: Okay. So that is effectively still—

Mr Paterson: I should have said the other one is not yet announced.

Senator COLBECK: It is still in play.

Mr Paterson: Yes.

CHAIR: Senator Colbeck, it is five minutes before the dinner break.

Senator COLBECK: Hopefully we can get to the end of where we are by then and we can go away and play with numbers our heads during dinner. So the—was it the Very Small—

Ms Kennedy: Particle Company.

Senator COLBECK: The Very Small Particle Company and the Holden announcements would have been part of the \$108 million in applications on hand. When the program was announced, one of its purposes was to support research and development and early-stage commercialisation of green Australian automotive technologies. Do those key aims run right through the program, or have they been modified as the program has developed?

Ms Kennedy: They have remained throughout the program.

Senator COLBECK: So we are still trying to achieve those with each of the particular grants that we are running?

Ms Kennedy: At the project level, yes.

Senator COLBECK: Is that being managed as part of the evaluation and monitoring you have done of each of the projects and oversighting of the allocation of money to ensure that those objectives are being met?

Ms Kennedy: Companies were able to identify the nature of the activity that they were undertaking. In some cases it was R&D through to pre-production. For others it may not have involved R&D but proof of concept and beyond. That relates to individual projects. The activity for which they have been supported is monitored on a regular basis.

Senator COLBECK: What is the recording process reporting process for that back to the minister or to government?

Ms Kennedy: From an AusIndustry perspective we gather that information as part of the quarterly reports. That data is also collected as part of the end-of-project reports, annual reports and post-project reporting, and that is made available for the purposes of an evaluation.

Senator COLBECK: But who is that information made available to, and how might the parliament assess that process?

Mr Durrant: As usual, the department regularly takes evaluations of programs. The Green Car Innovation Fund will be evaluated. We discussed last time some of the high-level KPIs that that would be included in that top-level evaluation. No formal evaluation has yet taken place of the Green Car Innovation Fund.

Senator COLBECK: So what process are you using to keep an eye on it as it goes through?

Mr Durrant: AusIndustry have a very good contractual arrangement. They have milestone reports. They pay against those milestone reports. They also include how the activity is furthering the objective of the fund.

Senator COLBECK: So as part of the department's KPIs, is it reported back through your process into your annual reports? How do we access that information?

Ms Butler: The KPIs for the Green Car Innovation Fund also contribute to the broader portfolio budget statement. You will see in the components there that there are some key performance indicators which talk about commercialisation and investment in R&D over time. AusIndustry would provide those metrics based on the information we would receive back from the companies as part of their contractual obligations to inform the broader considerations for the portfolio budget statement reporting.

Senator COLBECK: So we keep an eye on it through that process—that is, the department's and AusIndustry's general KPIs through the PBS?

Ms Butler: And we have kept quite considerable capability within the Green Car Innovation Fund in terms of personnel there who will monitor quite closely these projects through time.

Proceedings suspended from 18:00 to 19:06

CHAIR: The committee will now resume and we will continue with the innovation and industry part of the Department of Innovation, Industry, Science and Research. I think Mr Paterson has a response to a question.

Mr Paterson: Senator Colbeck, we were trying to reconcile the Green Car Innovation Fund dollars before the break. I am hopeful that I can step you through and reconcile each of the numbers. Part of our difficulty is that you have \$77 million in your calculation.

Senator COLBECK: It was what was left after I had taken all the other stuff out that we had calculated. My understanding is that my numbers—particularly the \$308 million, the \$5.7 million and the \$108 million—were all at a point in time.

Mr Paterson: They were. The difficulty is that the \$77 million is a double counting in relation to the \$5.7 million. Prior to the break, we spoke of the \$5.7 million—

Senator COLBECK: This is not a loaves-and-fishes story, is it?

Mr Paterson: No. We can do many things, but loaves and fishes are beyond us. Your \$77 million should be \$83 million because you have taken \$5.7 million off the \$83 million.

Senator COLBECK: I do not have \$83 million in my numbers.

Mr Paterson: No, you have \$308 million. The \$308 million included the \$5.7 million and you have taken that off the \$308 million.

Senator COLBECK: I added it to it.

Mr Paterson: You would be better at the loaves and fishes then. We started with \$1.3 billion and we have agreed on two by \$200 million for the \$400 million which takes us to \$900 million. There was \$401 million in announced savings on the closure and \$308 million in grants and offers on hand at the last estimates.

Senator COLBECK: No, commitments.

Mr Paterson: That was commitments. There was \$108 million in applications on hand.

Senator COLBECK: Yes, we agree on that number.

Mr Paterson: That takes us to \$83 million. That \$83 million includes the \$5.7 million that we spoke about which are those two grants, one of which was announced and the other was not announced. That \$5.7 million is in the \$308 million, not in the \$83 million.

Senator COLBECK: The \$308 million includes the \$5.7 million?

Mr Paterson: Correct, so we are left with \$83 million. You take \$1.3 billion, less \$400 million and take away the \$401 million on the savings.

Mr Paterson: So you take out another \$308 million, then you take out \$108 million again, which are the applications on hand—

Senator COLBECK: Yes.

Mr Paterson: That gives you a bottom-line figure of \$83 million. Of that \$83 million, \$23 million is departmental and other operating expenses, and \$35 million of the \$60 million, which we referred to in the answer to the question on notice and which was available to the industry at the time in 2010-11, came out in the portfolio budget statement in 2010-11 on page 27. There was a reduction in the Green Car Innovation Fund at the time, which was a parameter adjustment. The other \$25 million came out in PAES for 2010-11 on page 15.

Senator COLBECK: In PAES?

Mr Paterson: In PAES: portfolio additional estimates. So \$25 million came out in PAES for 2010-11 and the \$35 million in the PBS at page 27 in 2010-11, which covers the \$60 million. The \$23 million for departmental and other operating expenses is that \$83 million, so I think that reconciles all the numbers.

Senator COLBECK: So the \$400 million really should be \$460 million?

Mr Paterson: The \$401 million—

Senator COLBECK: No, I am talking about withdrawals. These two figures are withdrawals: the \$35 million and the \$25 million are withdrawals—

Mr Paterson: Correct.

Senator COLBECK: They were done in 2010-11 as part of that process—

Mr Paterson: They were two separate processes, and they were independent of the other two announced changes.

Senator COLBECK: So there should be an additional two numbers in those withdrawals in that 2010-11 time frame? Actually, the 11 May one is a 2009-10 one, the 14 August one is a 2010-11 one and there should be two more numbers under 2010-11, one being \$35 million, which was a parameter adjustment—

Mr Paterson: Which came out of 2009-10.

Senator COLBECK: Which came out of 2009-10, so it applies back to the first \$200 million, and \$25 million, which is—

Mr Paterson: The \$25 million came out of the PAES in 2010-11.

Senator COLBECK: Okay. So the real number for 2009-10 is \$235 million?

Mr Paterson: Correct.

Senator COLBECK: And the real number for 2010-11 is \$225 million?

Mr Paterson: Correct. The combined effect of those two measures as distinct from real numbers—they are all real numbers—

Senator COLBECK: Yes.

Mr Paterson: The two lots of \$200 million were—

Senator COLBECK: The gross amount, if you like, that was deducted through whatever process in 2009-10 was \$235 million—

Mr Paterson: Correct.

Senator COLBECK: And the gross amount deducted through the two processes in 2010-11 was \$225 million?

Mr Paterson: Correct.

Senator COLBECK: And there was \$23 million in there through the time span, whatever that might be, for departmental expenses?

Mr Paterson: For departmental and other operating expenses.

Senator COLBECK: Okay. I might get you to take on notice what those things may have been so I can deal with that. And the \$5.7 million that I listed is part of the \$308 million?

Mr Paterson: Yes, part of the \$308 million. And that \$5.7 million we announced prior to the break were two grants, one that has been announced and one that has not.

Senator COLBECK: It was two grants: there was the Nissan one and one that is still to be announced.

Mr Paterson: Correct. Of the \$5.7 million, the \$3.348 million for Nissan Casting has been announced, and there is one other grant yet to be announced.

Senator COLBECK: Yes.

Mr Paterson: When you said that you wanted us to take on notice the other bit, I am just not 100 per cent sure about that.

Senator COLBECK: The departmental?

Mr Paterson: Do you want a breakdown between departmental—

Senator COLBECK: What did you spend that on? Just describe that for me.

Mr Paterson: That is predominantly the staff who run the green car program within Oz industry. That is a multiyear program, and even though it is closed we still have contracts that have not yet been finalised and we have the management of the contracts that have already been approved and announced in place. So we have people from 2009-10, 2010-11 and 2011-12, and some people carrying on into 2012-13.

Ms Kennedy: In fact it goes through to 2015-16 because the—

Senator COLBECK: That is the tail?

Ms Kennedy: That is right. The contracts run through to 2014-15 but they are paid in arrears, so we will need to continue to progress those payments and final reports into the 2015-16 year.

Senator COLBECK: Okay. I think we know where it all is now. In the case of the \$149 million grant for production of the Holden Cruze, is it true that its engines will still be imported?

Mr Paterson: The answer is yes.

Senator COLBECK: What about their gearboxes and onboard computers?

Mr Paterson: For gearboxes I think the answer is yes. As to the onboard computers, that is a much more complex question; I think we would have to take that on notice. I am not sure of

the breakdown of which parts of the intelligent system are imported and which parts are supplied locally.

Senator COLBECK: So one set of engines would be sourced from Austria and the other two engines would come from South Korea?

Mr Paterson: There is a diesel variant and that is probably the one that is coming in from Europe. The other two engines are most likely from Korea. We will correct that if that is wrong, but I am pretty sure that that is the response to your question.

Senator COLBECK: Do we know what other parts of the car are being imported and what the break-up is in terms of the total value of the components and imported components?

Mr Paterson: I am not aware of that, and I am not sure that that is information that we would necessarily be able to give you. As to the breakdown of those components to that level of detail: obviously the prices that individual companies pay for components would vary over time, depending on supply arrangements and the timing of contracts. But it would also be information that would be commercial-in-confidence to some degree. Clearly the cars are being made in Australia, but they are being made from local componentry and imported componentry.

Senator COLBECK: I understand. My daughter has just bought a new Cruze. We went through some of the options on it, and I have to say I am a little surprised to hear some of the answers about the sourcing of some of the parts, based on the sales spiel. Anyway, that is another issue that we can look at down the track; that is not something we need to worry about here tonight.

In relation to the \$40 million or \$39.8 million that has just been granted to Holden for the new green Commodore, is it correct that Holden was already developing an LPG Commodore before this grant was awarded?

Mr Durrant: Holden has had a gaseous fuels strategy for some time now, which includes LPG.

Senator COLBECK: So how does this fit into the context of Australian and new innovation?

Mr Paterson: There are two components I think. The previous LPG vehicle that was sold by Holden was an after-market exercise; it was not a production line vehicle. I think that the new one is new technology that has been developed. I stand corrected. This one is about fuel economy and light-weighting technology. It is not for LPG. The latest grant is for light-weighting—

Senator COLBECK: Light-weighting?

Mr Paterson: Light-weighting of the vehicle and a series of fuel economy measures for the petrol variant of the Commodore.

Senator COLBECK: I want to go on to Cash for Clunkers. Did the department alert the minister at any stage to there being a risk that the rollout for Cash for Clunkers could replicate some of the kinds of problems experienced in the government's Home Insulation Program?

Mr Paterson: We cannot comment on the advice that we provide to government. I do not want to go through the charade, but we do know the program to which you refer to as Cash

for Clunkers. The program that we had appropriated and then the government chose not to proceed with was the—

Ms Butler: The Cleaner Car Rebate.

Senator COLBECK: I am afraid your official name for it is lost in the Australian lexicon. We went through that last time. The program does not exist anymore, so it probably does not matter as much. A quote that I have here out of a departmental brief to the minister, dated 3 November 2010, says:

Rationale for deferring the start of the scheme includes the recent Australian National Audit Office inquiry into the Home Insulation Program, which concluded that there are many challenges with rolling out a complex program in a short time frame.

There is another section under the heading 'What has the government learnt from the failed insulation program?' That brief does not exist?

Mr Paterson: I did not say whether a brief existed or not. I simply cannot comment on the advice we provide to government.

Senator COLBECK: To a minister or to cabinet?

Mr Paterson: Either way. We do not comment on the advice provided.

Senator COLBECK: Not even as to whether that advice exists or not?

Mr Paterson: Correct.

Senator COLBECK: Can you give me how many ASLs and the total administrative expenses spent on the program?

Mr Durrant: I can give you the ASL, which was 1.8375.

Senator COLBECK: How do you work out something like that, to four decimal places?

Mr Durrant: It was a calculation that we did based on the estimates of time by individual officers.

Mr Paterson: We provided that answer to you on notice in response to question A121.

Senator COLBECK: Which brings me to the next question: A171. There may be a difference in time frames, but the second question does confuse it a little bit because you have 1.775 in the answer to that question but—

Mr Paterson: It is a timing—

Senator COLBECK: The reason I raise this is because answer 1 says \$1.18 million GST inclusive spent over the life of the scheme. I get that, but—

Mr Paterson: The difference between the two is that in question 2 you limited your question to 'between September 2010 and January 2011'. The calculation in our response was 1.775 ASL in that time frame. The response to question 21 was not time limited and the calculation there was 1.8375.

Senator COLBECK: It is a small amount.

Mr Paterson: We are not talking a coat of paint here.

Senator COLBECK: Potentially about a coat of paint. But my point is that in the first question you took the dollar amount over the full time frame, but then—

Mr Paterson: That is because part 1 of the question was not time limited, part 2 of the question was time limited.

Senator COLBECK: So I can pull the two together and say the total over the life of the scheme spent was \$1.18 million and the total ASL was 1.8375?

Mr Paterson: Correct.

Ms Butler: Excuse me. Question 1 was about the cost of the awareness campaign; the answer was the implementation of the awareness campaign is 1.18 million. It is a different question.

Senator COLBECK: Okay, so that means I still need to know what the administrative expenses were. Can you give me that?

Mr Paterson: The first question in 71—

Senator COLBECK: No, I have been through that. I accept the point that was made.

Mr Paterson: So that is a projection of what the campaign would cost. We are not asserting that there were any other administrative costs that—

Senator COLBECK: I am asking were there any other administration costs.

Mr Paterson: We are saying that there were no other administrative costs other than the 1.775 AFL.

Senator COLBECK: Okay. So that effectively is the total cost of the program—I think we are back to where we started sort of.

Mr Paterson: We are back to where we started.

Senator COLBECK: So \$1.18 million was spent on—

Mr Paterson: No: anticipated to be spent on an awareness campaign.

What did you assess would need to be the cost of that campaign?

You said:

... the Department undoubtedly would have considered the implementation of an awareness campaign for the scheme. What did you assess would need to be the cost of that campaign?

Our answer was 1.18 million. We did not spend 1.18 million; we assessed that was the cost of a campaign. We did not run a campaign.

Senator COLBECK: So you did not spend any of that money?

Ms Butler: No.

Senator COLBECK: So the total cost of the campaign—

Mr Paterson: The total cost of us administering that program is 1.8375 ASL.

Senator COLBECK: Let us go to R&D tax incentives.

Mr Paterson: It has just been pointed out that we absorbed that cost because the program did not proceed. So it did not cost anybody, other than us, anything.

Senator COLBECK: Except to say that those poor unfortunates who were working on it could have done something else had they not been doing that.

Mr Paterson: There is unquestionably an opportunity cost.

Senator COLBECK: Yes, there is an opportunity cost, so it did cost somebody something. Does the government still plan to make the R&D tax credit legislation retrospective to July 2010?

Mr Pettifer: The legislation that has passed the House of Representatives still has that start date. Whether that start date has changed going forward will be a matter for the Senate and the minister. It is obviously getting quite late now in the financial year for that start date to still apply. But there has been no formal decision to change that start date at this stage. That is not to say that process could not happen as part of the deliberations in the Senate.

Senator COLBECK: You do not have any information on that, Senator Sherry?

Senator Sherry: No. I do not, Senator Colbeck.

Senator COLBECK: Is it true that a new section called the R&D Incentives Assessment Review and Advanced Finance Section has been established within AusIndustry?

Mr Wilson: Yes, that is correct, Senator. Research organisational changes in the branch have seen some reorganisation of some of the sections within the team. There was previously an assessment and review section. It is basically the same section. If the R&D tax credit bill is passed by the House, that section would take on the advance funding function, which is part of the R&D tax credit.

Senator COLBECK: So when was the section established and how many people are staffing it?

Mr Wilson: The organisational changes just took effect on 16 May. There will be approximately 12 ASL in that section.

Senator COLBECK: So the section it replaced was effectively operating the old system. What is the difference in staffing from the old to the new?

Mr Wilson: In fact, it is interesting. It is the same ASL, Senator. But the section as it did exist and currently exists undertakes assessments of large case compliance under the tax concession. So it will continue to do the large case compliance activity under the credit, if the new program comes into place. It will also take on the advance finding section activity. That is part of the new program.

Senator COLBECK: So has it undertaken any activity in relation to that yet? Has it conducted any advance finding assessments?

Mr Wilson: No. It has not.

Senator COLBECK: So nobody has put anything up in that context yet? That is why?

Mr Wilson: The new program is not yet passed by parliament so the extant program is the R&D tax concession.

Senator COLBECK: So are you not having any discussions with anyone about that process in industry? What is the interaction with industry? You are not having any discussions with industry about that process yet? I can understand that no-one has put a proposal up yet because the legislation has not passed and they might not be certain about the final form of it—I get that—but you formed the division. It has functions. They are not talking to anyone about how things might work or starting to talk to people about working up proposals?

Mr Wilson: Senator, at this point in time, we have conducted some informal discussions about how we may undertake integrity and insurance processes under the new program and how that would transition from the current compliance type work we do under the tax concession. In broad terms, it is the same type of activity. We are undertaking certainly a continuous improvement program at the moment to increase the amount of compliance work we do. Our process is such that we are interacting with claimants when we are undertaking these compliance activities so that we can be prepared for if and when additional functions come under the R&D tax credit.

Senator COLBECK: On page 7 of the science and innovation budget tables, it indicates an estimated spend of \$1.21 billion for the refundable R&D tax incentives in 2011-12 and another \$790 million for non-refundable. Can you take me through how these figures were calculated, please?

Mr Weber: Can you read out those numbers and the question again, please?

Senator COLBECK: You have an estimated spend of \$1.21 billion for refundable R&D in 2011-12 and another \$790 million for non-refundable.

Mr Weber: These numbers are actually derived from the Treasury. They are the costings for the scheme and we received them.

Senator COLBECK: So they are Treasury's numbers, not yours?

Mr Weber: They are Treasury's numbers. The science, research and innovation budget tables are made up by the department, but we derive the numbers from a number of portfolios.

Senator COLBECK: So how do I find out—

Mr Paterson: They are the estimates for the R&D tax concession and the estimates prepared by Treasury. And both of these have always been prepared by Treasury. To the extent that we have published these numbers, we have always relied on the numbers that we get from Treasury.

Senator COLBECK: So based on the Treasury modelling that we and the minister have never seen?

Mr Paterson: We cannot test the numbers that we get from Treasury for the tax credit or the tax concession.

Senator COLBECK: Again, these are figures calculated by Treasury based on an assumption. One of those assumptions is that the legislation is not passed yet and they do not know what we might do to it?

Mr Pettifer: This would be on the assumption that the scheme is as it is characterised in the bill that has passed through the House of Representatives.

Senator COLBECK: That is as I thought. But what about the commencement date?

Mr Weber: Based on these numbers, it would assume the commencement date of 1 July 2010, which is completely consistent with the date that was in the legislation that has passed the House of Representatives.

Senator COLBECK: So there is an assumption in the bill—

Mr Paterson: There is an assumption in the numbers that have been published that the legislation would operate from 1 July 2010.

Senator COLBECK: And in the form that is currently before the House?

Mr Paterson: Correct. Because the House has passed it and it is before the Senate at the present time. So that is the assumption.

Mr Pettifer: What would happen with these numbers is if the start date is revised and the tax concession were to continue to apply for claims in 2010-11, then those numbers would be revised next year.

Senator COLBECK: Through the MYEFO process, I presume? And they would pick up any changes that the Senate might make if it passed the legislation?

Mr Pettifer: Going forward, yes.

Senator COLBECK: Minister, we do not have a timeframe when the legislation might come before the Senate?

Senator Sherry: I am not aware of any.

Senator COLBECK: It has appeared on the *Notice Paper* in the last sitting week, but it keeps disappearing.

Mr Pettifer: Senator, the minister is obviously very keen to have this legislation passed—he has made no secret of that—so I would assume that he would want to bring it back pretty early in the next parliamentary session.

Senator RYAN: Minister, are you provided with advice from Fair Work Australia or a ministerial colleague on the progress or the results of the use of the unfair dismissal code by small business from Fair Work Australia? I refer to numbers of applications, number of businesses that have utilised it successfully or otherwise and number of claims against the code. Are you provided with advice as to how small business is using it?

Senator Sherry: We would certainly have to double-check. I certainly cannot recall anything recently. I would have to take it on notice and see what we have got.

Senator RYAN: Minister, do you recall being advised, then, by either your department or by a colleague about the progress and the use of the fair dismissal code by small business? It is a fairly significant issue for small business.

Senator Sherry: Look, I cannot recall anything from the department. As to discussions with colleagues, Senator, they are private.

Senator RYAN: I appreciate that. I ask you to take on notice whether or not the department has provided you with the advice.

Senator Sherry: Yes. I had already indicated that earlier.

Senator RYAN: I would just like to make sure we narrow down a set of words and there is no inadvertent misunderstanding. Would it surprise you to learn that to the three months to 31 March there were 609 applications to Fair Work Australia by aggrieved parties about the use of the unfair dismissal code, effectively appealing against the decision by an employer to dismiss them consistent with the code? Would that surprise you to learn there was that number?

Senator Sherry: I do not know whether what you say is a matter of fact or not. I am happy to take it on notice and check whether it is fact or not. Let us assume it is. Beyond that, I could not make any observations until I had looked at the figures and looked at the data.

Senator RYAN: Sure. Would it surprise you to learn that of those 609 applications effectively against the use of the code by an employer, I understand that only two had their claims rejected by Fair Work Australia? That is, the decision on the employer and the utilisation of the code for a particular decision was upheld in its entirety. Would that surprise you that only two out of 609 were considered to be fully compliant with the code?

Senator Sherry: The government has made it clear that the current unfair dismissal laws strike the right balance between protecting employees and employers. Beyond that—

Senator RYAN: There were 609 applications and only two of them were upheld in the employer's interest. I am not alleging any malfeasance on behalf of Fair Work Australia. Surely it would be a reflection of a very poor code if only two businesses managed to comply out of all the applications against those decisions?

Senator Sherry: As I said earlier, the government believes the unfair dismissal laws do strike the right balance. Beyond that, I do not have any observation. I have not had a chance to look at the data that you are quoting and in detail and in context. I am happy to go away and have a look at that and perhaps try and identify causal factors and issues around the data. But beyond that, I do not have any specific conclusions.

Senator RYAN: Could you also take away whether or not you were made aware of the other 607 to 31 March this year and how they are treated? I assume that it is not a black or white decision; there may be decisions that are partially upheld or require some partial remedy. Would it be possible for you to take on notice the result of the other 607 decisions?

Senator Sherry: I am happy to do that. I will just mention, because it has been pointed out to me, that I am told the Department of Education, Employment and Workplace Relations estimates that Fair Work provides 79 per cent of employees with access to unfair dismissal protection, which compares to 48 per cent under Work Choices. So that would affect the statistics because you have almost a doubling of the number of employees. That would have to be considered as part of this analysis.

Senator RYAN: You would be concerned that basically one-third of one per cent of decisions being made about small businesses pursuant to the code instituted by your government are being upheld. That has to reflect a problem with the code, unless you are assuming there is some sort of conspiracy of small business to breach it. Part of the problem here may not only be the substance but also the difficulty of compliance.

Senator Sherry: I am happy to look at the statistics that you pointed to. But beyond that, as I say, I think the government's unfair dismissal laws strike the right balance. But I am happy to take it on notice and look at the statistics and see if we can give you a response.

Senator RYAN: And whether or not your statement that you think they strike the right balance remains. I want to turn now—

Senator CAMERON: I have a question on that point. I am just looking at the key facts. Part of the department's website lists the key facts and their relationship to small business. It shows there are 1,961,367 small businesses around Australia. Would that be accurate? It is on your key facts website for small business.

Mr Schwager: It sounds correct, Senator. I just do not have that precise facts sheet in front of me, I am afraid.

Senator CAMERON: I do not know if we have any mathematicians out there. What is the percentage of 609 of nearly two million? It would be infinitesimal, would it not? My mathematician tells me 0.0322. That even sounds big.

Senator Sherry: It is very small, Senator.

Senator CAMERON: It is very, very small.

Mr Schwager: I am not sure the two numbers are actually comparable, Senator. But I think your point is that it is a small percentage of those with employees.

Senator CAMERON: With the capacity to make a claim.

Senator RYAN: That was in three months, Senator, and of the number of claims to Fair Work Australia.

Senator Sherry: The other thing I would say, Senator, is that we have to remember a significant proportion of small businesses do not actually employ anyone. They are micro-businesses. I think you are making a point, drawing out your statistics. Senator Ryan is making his point, referring to statistics. There is a debate and an argument around it.

Mr Schwager: The statistics also do not include those where there has been a dispute that has been conciliated.

Senator RYAN: The 609 I referred to is the number of applications by aggrieved parties to the use of the fair dismissal code. It would be the number of events rather than the number of businesses.

Senator CAMERON: Let us double that or quadruple that. Let us multiply it by 50 and it is still small.

Senator Sherry: I would point out, though, this is not the Department of Education, Employment and Workplace Relations, where these statistics on dismissals could be examined more correctly in detail.

Senator CAMERON: I am not sure if Senator Ryan wants to go back to Work Choices, but if that is what this is about, I am happy to hear more.

Senator RYAN: Dougie, I am amazed it took you that long.

Senator CAMERON: I am happy to hear more.

CHAIR: Senator Ryan, you have the call again.

Senator RYAN: I want to turn to your paper released recently entitled 'Resolution of small businesses'.

Mr Paterson: Dispute resolution?

Senator RYAN: Have I missed anything? I am happy to have it pointed out, if I have. There is no budget allocation for the institution of any of those four mechanisms, is there?

Senator Sherry: That is correct, Senator. You cannot actually allocate a budget until you have come to a policy conclusion; that is correct.

Senator RYAN: I appreciate that. It is a factual question. I just wanted to make sure that I had not actually missed it. I want to get my facts right. Do you have a timeframe for a decision about a preferred option, legislation, if required, and the allocation of funds, assuming they are required?

Senator Sherry: A decision will be made once consultation is concluded.

Senator RYAN: Do you have a timeframe for all of that?

Senator Sherry: No.

Senator RYAN: You do not have a timeframe for consultation?

Senator Sherry: No. We have a timeframe for consultation, but beyond that we have not set a timeframe, as best I can recall, no.

Senator RYAN: The paper itself outlines, particularly with option 3, some legal issues around the use of the Commonwealth's judicial power in a tribunal. Has the department undertaken any work as to possible ways to create a tribunal, presumably, or the limits of the power of a tribunal without referral to state powers, or are you exploring the referral of state powers?

Mr Joyce: At the moment we have done some scoping work around the constitutional limits around the tribunal. That was done as part of the preparation for the work for the options paper. But at this stage, as we are only just entering the consultation period, we have not done any further work on that at that point.

Senator RYAN: Have you done any scoping work on how many physical locations there would be in the tribunal?

Mr Joyce: Not at this stage, Senator, no. We do talk about a capital city location for the tribunal, but at this stage not any further than that.

Senator RYAN: And I read correctly when I read a capital city, did I not?

Mr Joyce: That is correct.

Senator RYAN: By that, I am assuming we are not assuming plural; you mean a capital city across the entire nation?

Mr Joyce: At this stage, Senator, it is only a concept so it is a singular—a capital city.

Senator RYAN: The example you use of New Zealand has 15 offices around a place that is physically not much bigger than my home state of Victoria.

Mr Joyce: Indeed, Senator.

Senator RYAN: And your scoping is limited to the study of one place across a significantly larger country?

Mr Joyce: At this stage, Senator, it is only a concept so we have only done it as a concept of one city at this point in time. Should that option be—

Senator RYAN: Conceptually, the people of Western Australia might be a bit upset because they do not often tend to land in Perth.

Mr Joyce: Indeed, Senator. But you also would note that New Zealand has one system compared to the states and territories and, of course, the Commonwealth here. So the concept is built around possibly a collaborative venture with the states and territories or other means.

Senator RYAN: I will quote from the bottom of page 19 of the paper:
The time required to establish the NSBT is likely to be lengthy.

Can you be any more specific than 'lengthy'? Lengthy could mean many things. It could mean a couple of years. It could mean five. You do not have any more specific timeline than that?

Mr Joyce: Not at this stage, Senator, no.

Senator RYAN: Pending a decision from the government or the limits of the scoping study?

Senator Sherry: I am entitled to answer. It is a consultation paper, Senator. We genuinely want to consult about the four options. We want to hear the views of small business, small business organisations, consumer organisations et cetera, so you cannot predetermine the outcome. That is not the purpose of a consultation paper. The issues you are raising flow from the consultations that will take place and the final decisions made as to any model.

Senator RYAN: Senator Sherry, if you have four options out there, one of the questions I am asking is: why is one of the options, being the tribunal, seeming to be limited to one physical location across quite a large country? That is the option.

Senator Sherry: Just let me finish. You have asked a question. As I have already pointed out, this is an options paper. It is to encourage debate, discussion and feedback about the range and the different models that are offered. I am sure that if the point you raise is of interest to other parties, they will comment on it and make some suggestions.

Senator RYAN: So you are open to the suggestion of more than one location?

Senator Sherry: I made it very clear at the launch and to people who have raised these issues from time to time that I have a totally open mind as to the model. I want to see the feedback. I think it is reasonable to list and outline in a comprehensive way as many of the issues as possible.

Senator RYAN: But you do not have an outline as to the timeline?

Senator Sherry: Senator, how can you have the detailed outline of a timeframe that you are suggesting? Timeframes will be influenced by the particular model that is—

Senator RYAN: I am referring to the timeframe for your decision.

Senator Sherry: Just let me finish, please. I have not finished my answer. The issue of a timeframe will be determined, in part at least, by the type of model that is adopted. Some are more complex proposals than others. Some require a more detailed legal structural framework. So that will be an important contribution as to timeline outcomes and implementation.

Senator RYAN: I understand about implementation, but I interrupted you there and you said you wanted to finish your answer. Is there a timeline for a decision?

Senator Sherry: Or, indeed, the timeline for a decision.

Senator RYAN: They should not stay up waiting?

Senator Sherry: I want to finish the answer. Clearly, from the experience I have had, for example, in the deregulatory COAG seamless economy, any discussions and implementation have to take into account existing state provision and models where they provide in some areas and other sectors do not. They are complex discussions, so you cannot commit to a timeline. I have made that very clear publicly and I have made it very, very clear to at least

some people who have raised this issue in discussion with me over the last year, I suppose, or last six months, certainly.

Senator RYAN: So is the consultation process a formal one in the sense of a series of meetings or forums that you are holding? Is it being conducted just through the department's website, for example; are you seeking feedback that way? Is it being conducted through a series of one-on-one meetings or by invitation roundtables?

Mr Joyce: It is a combination of all those things. There are formal forums which both the minister and the department are attending. There is also the online report itself and there is an email postbox for formal submissions to come into. We are also taking phone calls and taking direct submissions from the public that way. We are also liaising with stakeholders and key peak bodies as well.

Senator RYAN: Can you take on notice and provide to me the actual meetings or forums that are taking place and a list of invitees and attendees, please.

Mr Joyce: We can do that, Senator.

Senator RYAN: I will now turn to the small business resource kit that was also recently announced. This was funded by, I understand, general revenue in the department. Do you have a cost for it?

Mr Cicchini: The small business resource kit is a USB drive toolkit with documents on it and various links. The cost of loading the USB drive and the purchase of the USB drive was probably in the order of \$50,000. I do not have the precise amount, but it is in that range, because I remember signing the contract for it. There are, of course, indirect costs associated with any publications. That includes staffing, checking documents, preparing documents, loading them on the website et cetera, which of course are not included in that figure.

Senator RYAN: No, I appreciate that. Can you take on notice the figure and just provide me on notice whatever the figure was for the contract for the provision of this USB stick.

Mr Cicchini: I am happy to do that.

Senator RYAN: How many were produced?

Mr Cicchini: We have produced 10,000.

Senator RYAN: What is the timeline that you would expect between someone making a query by phone or web and it being dispatched? Are they dispatched from Canberra or by a third party service provider?

Mr Cicchini: Most of the items will be dispatched through the Small Business Support Line, or they can be dispatched by the department if people email the department or contact the department directly. Supplies have also been made available to various business enterprise centres for distribution through that network. They are the main arrangements we have put in place.

Senator RYAN: On the business.gov.au website there is a page that is headed 'Small business resource kit'. It has a series of online resources, publications, industry information and research, and fact sheets. Can you provide me with a list of the applications or documents that are on the USB stick. I imagine it is somewhat dynamic with reference to links?

Mr Cicchini: Yes. There are a number of publications on there, such as *Starting your business checklist* and *Growing your business checklist*. They are publications that we were

recently putting out in hard copy. They are certainly on there. There are other links. We can give you a copy of the resource kit; we can make that available to you. In terms of itemising each document, certainly we can tell you what documents are actually on the USB drive. Then there will be links to various documents. But we will go through that process.

Senator RYAN: At least to various documents on the department's website?

Mr Cicchini: That are on the business.gov.au website and other resources available on other websites.

Senator RYAN: When I checked today and tried to find this via the department's website, I could not. I had to Google it. It did not come up on your front page. It did not come up under 'Popular resources'. It did not come up under 'Tools and resources'. Do you think you have a problem with its visibility? You cannot find this on the website of the department. The only way to find it—a search engine was tried—was to actually go to Google.

Mr Cicchini: I do not particularly think it is a problem. But there is the business.gov.au website, which is the key resource site for business. That is the site that I understand is marketed the most. Craig might be able to comment further.

Mr Sibly: I look after the business.gov.au website. That resource certainly is available through that site.

Senator RYAN: When I looked up business.gov.au, I could find the page but I could not find the mechanism to request the stick, so to speak, or the kit.

Mr Sibly: Yes, there are references to it.

Senator RYAN: I was not sure, because I do not know what is on the stick, whether or not that page was the whole package. It is not obvious that the stick just represents what is on the page.

Mr Sibly: The page certainly talks about the resource. It will not go into a particular item, because those things do change over time. But you can certainly access it through the small business support line.

Senator RYAN: That is all I have on the issue of the USB toolkit. There are a couple of budgetary issues I want to ask about. Minister, it is probably appropriate to start with you. What was the rationale, if you were consulted—I am not sure if you were—for the cessation of the work and family support for small business program? I believe the last round of it was not proceeded with.

Senator Sherry: I do not think this is the appropriate estimates.

Senator RYAN: I realise it is a budget measure that comes under FaHCSIA, but I am wondering whether the Minister for Small Business—

Senator Sherry: That matter would be dealt with in FaHCSIA. I do not know if any of our officers can add anything to it. I cannot.

Senator RYAN: Do you have anything to say about it, Minister?

Senator Sherry: No. I do not.

Senator RYAN: Were you consulted with respect to the small business depreciation measure—the accelerated deduction for motor vehicles—that was announced in the budget?

Senator Sherry: Senator, I am not going to go into consultation around budget measures. It is not appropriate for me to do that. I cannot blame you for trying. I think this is my 68th estimates week in the parliament. That is a year and a half of my total life.

Senator RYAN: I want to explore the changes and the cuts to the small business advisory services in the budget, Minister. I believe I am actually in the right place for that. There was a \$500,000 cut in the estimated expenses for the small business support line. I am wondering about the rationale for the estimated fall in expenditure.

Mr Cicchini: The support line would have come to an end at 30 June 2011. However, the budget extended that program by providing an extra \$7.1 million over the next four years. So it has been extended. It has not been cut as such.

Senator RYAN: I was very careful with my words there. I talked about the fall in expected expenses from \$1.9 million to just over \$1.3 million. I was wondering about the rationale for the fall in estimated expenses. Unless there has been a change to the terms of the program that would explain that, I am wondering what it is.

Ms Launder: Through the mechanisms by which we delivered that program, we were able to get some efficiencies in our contract through Datacom, which is the organisation. So that accounts for the drop from one year to the next.

Senator RYAN: It is simply a reduction. You pay a third party to provide that service. Were there any changes in, shall we say, the performance measures or the metrics of that service, be it number of calls expected, number of operators answering calls or hours of operation?

Ms Launder: No, there were no changes as a result of that. We were able to retain the level of service from one year to the next.

Senator RYAN: The government should find a use for you elsewhere. It would save a lot more than \$500,000.

Senator Sherry: I think the work is typical of the government arm.

Senator RYAN: I am sure you do, Senator Sherry. The substantial fall in the expenses of the small business advisory service, I understand, is from \$13.2 million to \$5.6 million. Is that related to the change in funding for the business enterprise centres? It is on page 25 of the PBS.

Ms Launder: With the small business advisory services, that has mostly come about through the reprofiling of our appropriation from one year to the next. There has been no drop in the actual amount provided.

Senator RYAN: Take me through the reprofiling. My accounting was a long time ago.

Ms Launder: I think I would like to take that question on notice if I could, please.

Senator RYAN: Okay. I appreciate, in that case, that it is more than a halving. I thought it was actually the change in arrangements for business enterprise centres, but I have obviously missed something.

Ms Launder: What happens sometimes with this particular program is that we are able to facilitate some of the payments earlier for some of the BECs. So we actually bring forward and make an earlier payment. Then we rectify that in the following year.

Mr Paterson: We are also able to make adjustments between programs within the same outcome.

Senator RYAN: Sure.

Mr Paterson: So the reprofiling exercise is us making adjustments between programs within the same outcome and funding part of this program out of a different program in the current financial year and then doing the reverse of that with the profile in the subsequent financial year.

Senator RYAN: Could you take on notice, if that was the case that occurred here—

Mr Paterson: That is the case.

Senator RYAN: what other line item within the outcome was reallocated money in this financial year? Where did it come from?

Mr Paterson: I use the term ‘borrowing’ loosely. But we can borrow out of one program within the same outcome in that financial year. So we are borrowing out of Commercialisation Australia in the new financial year and we will be repaying in the subsequent financial year. So the other program is Commercialisation Australia.

Senator RYAN: I am looking for it.

Mr Paterson: You will not necessarily see that in the PBS.

Senator RYAN: How much was reallocated from Commercialisation Australia?

Mr Paterson: \$4.825 million.

Senator RYAN: Excuse me, because I am not as on top of these details as you, Mr Paterson, but was that due to an underspend in Commercialisation Australia this year that allowed it to have a bit of spare cash?

Mr Paterson: A profile issued between the two programs. So, rather than go back and take money out of a program and put money into another program, within the finance rules we can move below a threshold and we can move between programs. With ministerial approval above a threshold, we can move between programs. It is the profile. If you have a grants program like Commercialisation Australia then the spending profile will depend on the nature of the applications and the contracts that you enter into. So we are able to—

Senator RYAN: So this \$4.8 million is effectively going to be repaid next year because of the timing of grants with Commercialisation Australia?

Mr Paterson: Correct.

Senator RYAN: Do the budget papers reflect that \$4.8 million being in Commercialisation Australia next year which would not have been there in MYEFO earlier in the year?

Ms Butler: Yes.

Senator RYAN: Are those sort of profiling changes regularly marked up in the budget papers so someone like me could keep track of them? It is not a substantial change if it is below a certain threshold, so I would not expect to see it in Budget Paper No. 2, but are they marked up? For example, with Commercialisation Australia, if I compared MYEFO, I would now see an extra \$4 million in next year’s budget?

Mr Paterson: The answer is no.

Senator RYAN: Will the budget outcome this year for the department point out that there was \$4 million less spent in Commercialisation Australia? That is, if I put them all in front of me, can I track this?

Mr Paterson: No, we report not at that program level but at the outcome. That is why we can do it within an outcome.

Senator RYAN: If I put a series of questions on notice to you about reprofiling measures that are undertaken, presumably you have the capacity to answer them. I might be one of the few people who is interested in this sort of thing, where \$4 million is not spent in a program this year but is spent in a program next year that might otherwise, maybe unintentionally and artificially, look like an increased spend when it is not. It is simply a reprofiling, to use your words.

Mr Paterson: Depending on how broadly you ask the question, Senator, I am sure we can answer the question. We know precisely where we have moved money between programs to be able to reflect the budget profiles. So, if you ask too open-ended a question, we may never get to it.

Senator RYAN: I will be specific. Was that the only money reprofiled out of Commercialisation Australia in the current financial year?

Ms Butler: Somebody is nodding yes.

Senator RYAN: I appreciate the answer can be taken on notice. I am conscious of time.

Mr Paterson: So are we, Senator, so feel free to wind up at any time.

Senator RYAN: Minister, do you envisage having a role at all in the budget measure that refers to increased reporting requirements for independent contractors in the building industry? I realise it is a touch offside.

Senator Sherry: That is for the tax office.

Senator RYAN: I thought so. I was just checking. I think that is all I have, Chair.

CHAIR: There being no other questions for the small business section, we will move on to the science and research section of the Department of Innovation, Industry, Science and Research. I thank the small business people.

Mr Paterson: We are agreed that the only people who need to remain around are in outcome 2?

CHAIR: Yes, indeed, thank you.

Mr Paterson: Senator Ryan, you asked whether there was any other money borrowed from Commercialisation Australia. In our portfolio budget statement on page 64, there is a reallocation of \$2 million from 2010-11 to 2011-12 within the Commercialisation Australia program, which is a movement of funds, essentially, between 2010-11 and 2011-12. It is also a profile related issue but, because it is a movement of funds within that program from one financial year to the next, it is reflected in the PBS. I said that that was the only borrowing out of Commercialisation Australia. I just want to be 100 per cent clear that there was that \$2 million movement that was declared in the PBS.

[20:20]

CHAIR: We are on outcome 2.

Senator WILLIAMS: I want to talk about collaborative research networks. In 2009, the government announced \$51 million over three years for the collaborative research networks. On 3 June 2010, Minister Carr said, and I will quote from one of his statements:

Releasing these draft guidelines will ensure all universities have the opportunity to comment on the proposed eligibility criteria and other aspects of the CRN program.

I think the budget was \$114.1 million over six years. Have any of these networks been established or programs started?

Ms Baly: The program has started, although there has been no funding allocated from the program as yet. There were 16 universities eligible for funding under the program. Applications have been received. They have been discussed with universities at the compact process. I understand an announcement about successful applications is imminent.

Senator WILLIAMS: So how long before you expect that announcement? Any time line? Any idea?

Ms Baly: I said imminent, so I think we are talking days, not weeks.

Senator WILLIAMS: How much is being spent on the initial establishment of these CRNs? Have you any idea of the budget that has been spent already?

Ms Baly: None of the administered program budget has been spent at all. There has obviously been some staff time in assessing applications. So some of the departmental appropriation that is associated with that has been expended.

Senator WILLIAMS: Any idea how much has been spent on that administration?

Ms Baly: The amount that was allocated from departmental budget is \$256,000.

Senator WILLIAMS: What was that figure?

Ms Baly: It was \$256,000.

Senator WILLIAMS: Was 2010-11, this current financial year, the first year of that \$51 million budget figure?

Ms Baly: That is correct.

Senator WILLIAMS: So this year is nearly completed but there has been very little money spent. Is that correct?

Ms Baly: That is correct. But we still believe that the first round of funding will be provided this year. There is \$9.7 million—

Senator WILLIAMS: This financial year?

Ms Baly: There is \$9.7 million allocated for this current financial year. We expect that that will be provided during June.

Senator WILLIAMS: And these are regional universities only?

Ms Baly: Sixteen universities are eligible. They are not all regional universities, but they are all smaller, less research intensive universities.

Senator WILLIAMS: The budget just released has some reductions in the amount for these programs. Was there \$20 million slashed from the budget?

Ms Baly: That is correct. There was \$20.7 million.

Senator WILLIAMS: Over how many years?

Ms Baly: That was not for the first three years. So \$51 million is still—

Senator WILLIAMS: So the \$51.4 million is still there—

Ms Baly: Still there, yes.

Senator WILLIAMS: For 2010-11, 2011-12 and 2012-13?

Ms Baly: Yes. That is right.

Senator WILLIAMS: Then there is going to be, I think, about \$53 million for the further three years.

Mr Paterson: Page 54 of the portfolio budget statement outlines the new profile, which is \$9.7 million in 2010-11, \$20.7 million in 2011-12, \$20.7 million in 2012-13, \$10.4 million in 2013-14 and \$10.3 million in 2014-15.

Senator WILLIAMS: Is that a total of six years?

Mr Paterson: Five.

Ms Baly: It is a total of five years.

Senator WILLIAMS: So the original budget was \$114 million, but there has been \$20 million slashed. Why has that been slashed?

Ms Baly: That was a decision that was taken for part of the budget. It was announced as an election commitment. So \$7.5 million of that went to provide offsets for the Science for Australia's Future budget and \$13.2 million offset other investments in the innovation portfolio. Those two were announced on 24 July and 10 August last year.

Senator WILLIAMS: Who invented the scheme? Was it Minister Carr's idea? Do you know who proposed this CRN scheme?

Ms Baly: It was part of the package of budget measures announced as part of the response to the Bradley and Cutler reviews back in 2009-10. I do not know if that answers your question. I do not think I can put a name on it.

Senator WILLIAMS: That is where it came from. Do you have anything to add to that, Senator Mason?

Senator MASON: I do.

Senator WILLIAMS: Go for it, while we are on the CRNs.

Senator MASON: Just briefly, I will pick up from Senator Williams. Looking at the portfolio budget statement, there is \$20.7 million in 2011-12, \$20.7 million in 2012-13 and then \$10.4 million in 2013-14 and \$10.3 million in 2014-15. Let us face it: that is a reduction of 50 per cent, or near enough. How will that impact in practice on those 16 universities?

Ms Baly: It is not going to impact on the round that is being announced and the round for which universities have applied and are under consideration. It will have no impact at all. There has been no announcement made or decision taken on what a further round would look like.

Senator MASON: That is what Senator Williams was asking about. He has highlighted that the budget is cut in half from 2013. There are 16 universities. Indeed, it has a particular impact, as you will agree, on regional universities. You would accept that? How will it impact

upon those regional universities, given that they are only going to have half the funds for collaborative research?

Ms Baly: There will be less money for them to apply for. It is a competitive program. For a start, there is no guarantee that all 16 of those universities will get funding in the first round or subsequent rounds. That is the nature of competitive funding. As I said, there has been no decision taken on what a further round would look like or how that would be allocated anyway. So what it means is that there is less money left there for allocation in the subsequent and future rounds.

Senator MASON: There is only half as much, Ms Baly. So is the government contemplating changing the architecture of the round? Is it going to allow all 16 to apply or only eight? Sure, it is competitive, but the rules for competition can change. Has there been any thought given to that?

Ms Baly: I do not believe there has been any thought given to that at this stage. The focus has been on the current round, which goes up until the end of the 2012-13 financial year. There will need to be consideration given to what further funding rounds would look like.

Senator MASON: What is the educational or research justification for this?

Ms Baly: For the program?

Senator MASON: No, for cutting the program by 50 per cent.

Ms Baly: The program is designed to assist those less research intensive universities to build research capacity in an environment which is more driven by performance.

Senator MASON: Absolutely.

Ms Baly: So the cut to the program effectively means that there is less money there for allocation in future years.

Senator MASON: There will be less collaborative research for those universities trying to build up a research profile, Ms Baly. That is what it means, axiomatically, I would have thought?

Ms Baly: Well, for those that are likely to get funding. As I said, there is no guarantee that all of them will get funding out of the program anyway.

Senator MASON: No. Sure. There is only half as much to apply for in 2013. That is right, is it not?

Ms Baly: That is true.

Senator MASON: Can we go to CRCs, Madam Chair?

CHAIR: Yes.

Senator WILLIAMS: Minister, you said in August 2008 that the CRC program was established under the Hawke government in 1990. Over that time, it has been extraordinarily successful, with the Australian government committing nearly \$3 billion to establish the 168 CRCs. With that glowing report, we have now seen CRCs reduced, I think, from 70 to 42. Why have you cut \$33.4 million out of the CRC budget?

Senator Carr: Because it was a decision of the government.

Senator WILLIAMS: That is as clear as mud.

Senator Carr: Well, it is not. It is a statement of fact. There is nothing smug about it at all, Senator. It is a statement of fact.

Senator WILLIAMS: So the government just decided to cut the funding to CRCs by \$34.4 million?

Senator Carr: We have a budget consolidation program and we have a process by which we have to offset expenditure for new initiatives. The inevitable consequence of that is that we have to choose between worthwhile activities. I am a very strong supporter of this program.

Senator WILLIAMS: Of CRCs?

Senator Carr: Of CRCs. However, when you have very limited sources of funding through a program that contains funding which is uncommitted, then, of course, pressures come on those particular aspects of your overall portfolio funding arrangements.

Senator WILLIAMS: Go on.

Senator Carr: So, in that context, we are not actually winding up the program.

Senator WILLIAMS: You are winding it down?

Senator Carr: Yes. That is a consequence of a reduction in funding of that size. The overall funding commitment will provide us with \$662 million for the program across the forward estimates. There is a reduction of \$33 million to produce that result. It would have otherwise been \$655 million. I repeat: when you have a budgetary strategy to bring the budget back into surplus and that leads to a position where you have to find offsets for new activities, it is inevitable that worthwhile activities will be reduced.

Senator WILLIAMS: You would agree, Minister, that the CRC program has been a tremendous success over the last couple of decades?

Senator Carr: Yes. It was a Labor initiative. It has worked very, very well. You have indicated the scale of investment there has been in the project. A very, very substantial amount of money has been provided by the Commonwealth. There has been a very significant attraction of additional moneys into research as a result of this program. I do not resilé from that one bit.

Senator WILLIAMS: I have just seen firsthand at the universities and other centres what they have done in the sheep meat area, the poultry area and the cotton industry, for example. I know cotton farmers have not sprayed their crop for insects for three years. It has been magnificent research. Minister—

Senator Carr: There is no question that this high quality research—

Senator WILLIAMS: Would you not agree that the CRCs have contributed enormously to productivity in Australia over the last 20 years? You would agree with that?

Senator Carr: They have produced very good results, Senator. This is a reduction of 5 per cent on the funding over the budget and forward estimates period. It will not affect any existing CRC. It will not affect those that are due to commence operation in July 2011. Senator, this is about the future allocations of uncommitted moneys. All contractual arrangements will be met. But I do think you have to see this in context. It is a 5 per cent reduction on a \$655 million allocation.

Senator WILLIAMS: When they were first established in 1990, how many CRCs did we have then? It was 168, according to your words, in August 2008, Minister. How many CRCs will be left at the end of next financial year, 2011-12, do you know?

Senator Carr: They vary in size. I think you should be aware of a couple of things. We had a review of the CRC program and as a result of that review we changed some arrangements with regard to the size of the funding envelopes and the duration of the funding contracts. We have actually tried to change some of the structural arrangements with regard to the areas of research priority. So there will be over that period of time—over a 20-year period—changes in the number of CRCs. There will be changes in the number of rounds that are issued. There will be changes in the size of the funding envelopes and the duration of a CRC. A CRC is not guaranteed funding indefinitely. It is a highly competitive arrangement. My recollection is that in the last round—the 2010 round—there were 30 applications, of which four were funded. It is highly competitive. Senator, it is incorrect to assume that what happened in 1990 is what is going to happen in 2011.

Senator WILLIAMS: The funding is dropping so much that it will shortly be at the same level of the first year under the Howard government.

Senator Carr: That is not true, Senator. Senator, we are funding \$655 million, a reduction of \$33 million on that to \$622 million, over the forward estimates. I do not have the figures from 1990, but I reckon there would be a very good chance that 21 years ago we were not spending that sort of money on the CRC program.

Senator WILLIAMS: We can debate that. Are there any particular CRCs that will not have their contracts renewed next year, do you know?

Senator Carr: You have asked me how many were funded in 1991.

Senator WILLIAMS: In 1996.

Senator Carr: In 1991 you asked me.

Senator WILLIAMS: No. I said 1996.

Senator Carr: There were 16 funded in 1996.

Senator MASON: Under a previous government's Backing Australia's Ability program, I think it picked up markedly then.

Senator Carr: There were some moneys put in through Backing Australia's Ability for a finite period. It was a terminating program for a finite period.

Senator MASON: With considerable expenditure.

Senator Carr: I am not disputing that. But I am indicating that that is over a 21-year lifespan for the program. In the modern Commonwealth, to have a continuing program for that length of time is in itself unusual in the science and research areas.

Senator WILLIAMS: Which agencies, if any, will take up the gap that CRCs have been filling on things like feral pests, weeds and viruses breeding et cetera?

Mr Paterson: I reemphasise the point, Senator, that it is a competitive program, so it is wrong to view this as somebody else picking up the gap. If applicants are not successful in a competitive program, they are not successful in a competitive program. So the fact that somebody might put up an application that is not successful, whether this saving was there or

not, means that competitive applicants will miss out. And if competitive applications missed out on CRC funding before these savings—

Senator WILLIAMS: I am aware of that.

Mr Paterson: they will miss out on savings going forward. So it is wrong to try to characterise what is going to happen if someone does not get up in a competitive round.

Senator WILLIAMS: All of them are for around a seven-year period.

Mr Paterson: Between seven and 15 years.

Senator WILLIAMS: Of course, a lot of funding from the private sector also goes into many of the CRCs.

Mr Paterson: A lot of in-kind support goes into the CRCs.

Senator WILLIAMS: Lending of various saleyards et cetera?

Mr Paterson: And university funding. So it is a combination. They are all different, but there is a combination of funding from different sources. The CRC fund is a dominant source of cash.

Senator MASON: Senator Williams points out an interesting fact. Australia already does have quite low rates of collaboration. Just as you were coming in before, Minister, we were discussing the issue of the CRNs between universities. Now we are talking about between universities and the private sector. You are right—I know you have spoken many times on collaboration and how important it is—but the concern is that both these programs have been cut. The previous collaborative network program between universities was cut markedly by about 50 per cent. I was reading something the other day from Professor Les Field, the deputy vice chancellor of research at the University of New South Wales. He is the chair of the Group of Eight and Universities Australia and the chair of the DVC Research Group of Eight universities, so he is a significant Australian in this context. He said this:

The Cooperative Research Centres (CRC) program and the Collaborative Research Network (CRN) program were significant casualties in the budget. This is a very clear signal—

he wrote—

that the CRC program is really being wound down and its future must be in doubt. The CRC program was notably one of the few programs which has actually supported long-term collaborative programs between the University sector and industry.

Minister, is the future of the CRCs in doubt or is this an overreaction from Professor Field?

Senator Carr: Absolute overreaction. The CRC program is not in doubt. I am aware of this article. I thank the officers for drawing it to my attention again.

Senator MASON: I am not misquoting it, am I?

Senator Carr: No. You are not misquoting it. Let us just get the context here. There was a great deal of public agitation about what was going to happen to the NHMRC.

Senator MASON: Sure.

Senator Carr: It did not happen. That does not change the fact that when we are looking at a significant program of fiscal consolidation and we have to find offsets for new activities, it is inevitable that where we have uncommitted funds, it is more than likely that that is the area in which we will look to find offsets that are necessary. I accept that.

Senator MASON: I can honestly say that you of all ministers, in fact, in the government have spoken more about the need for collaboration than anyone else.

Senator Carr: Yes.

Senator MASON: And I have no doubt that is sincerely held. What Senator Williams, I and I know Senator Colbeck are trying to point out is that, with the cuts to both these programs, the prior one by 50 per cent, it would be unfortunate for the country if collaboration among the universities and collaboration between universities and the private sector were detrimentally affected.

Senator Carr: I understand exactly the point you make. I can assure you it is not the case that the government is walking away from our policy objectives with regard to high levels of collaboration. We have the R&D tax concession bill coming into the parliament. I trust you will be able to vote for it, Senator Mason. I have no doubt if look at it objectively that you will see there is \$1.7 billion available for R&D per annum. It is like combining the NHMRC and the ARC together. If we are talking about industry collaboration, that is probably the most significant measure that is available in the armoury we have to attract increased private investment in R&D.

Senator CAMERON: Minister, let us not forget the NBN. I am sure all these people will be supporting the NBN so that we can get good collaboration and better collaboration and faster broadband.

Senator MASON: As long as we have enough money to pay for it, Senator Cameron. Senator Conroy is handling it, so I am sure it will be okay.

Senator Carr: I make the point, Senator Mason, that there is plenty of opportunity there for you to demonstrate the coalition's support for collaboration. If I recall rightly, in the last election campaign, you actually proposed very significant reductions to university funding.

Senator MASON: Not in the last election.

Senator Carr: I think you will find it. Again, have another look, Senator.

Senator MASON: Some aspects you would call equity funding. We thought it would be better transferred to schools.

Senator Carr: I am making the point to you that when political parties make statements about fiscal consolidation, there is inevitably a point at which we have to actually see what that means.

Senator MASON: I accept that.

Senator Carr: These are hard decisions. I am a strong supporter of this program. We have taken five per cent out of \$655 million over a period of four years.

Senator WILLIAMS: You do not allow for inflation.

Senator MASON: Let me ask something concrete.

Senator Carr: You have asked me about inflation. We have indexation of in excess of 3.8 per cent, if I recall rightly. We want to look at what we are doing in terms of additional costs.

Senator MASON: There are indexation arrangements. I understand that.

Senator Carr: We are providing much greater levels of support than were previously available. So let us look at the context here.

Senator MASON: Let me ask you a specific question. Professor Peacock, who you would know, says:

Even without the \$33 million of cuts over the forward estimates that have been implemented in the election campaign and last night's budget, we are realistically looking at probably only five, six or seven CRCs being successful on this year's funding round. The cuts mean that the figures are more likely to be three, four or five.

Do you accept that, Minister? What is your sense?

Senator Carr: I am not certain of exactly what it will mean for future rounds because we simply cannot pre-empt those rounds before there has been an assessment. But it is inevitable that if you are going to have \$33 million less available, that will reduce the level of activity for the program.

Senator MASON: You and I both have a job, Minister, in showing our respective party rooms and, indeed, the public the value of all this, do we not?

Senator Carr: I think I have done a reasonably good job.

Senator MASON: I think you have been supportive of collaboration.

Senator Carr: I will make an observation to you. This government has increased support for science and research and innovation by 43 per cent.

Senator MASON: It depends how you calculate it. The coalition did a lot in the last bit about research.

Senator Carr: I am not arguing. I am making the point. Since we came into office, with what we are spending now, it has been a 43 per cent increase. It is very substantial. I would like to suggest it may well be the biggest increase in the history of the Commonwealth. You will argue the toss with me about the detail on this, but it is a very, very substantial increase. So if you want to argue, I think we have done a reasonable job of demonstrating to the government—

Senator MASON: Okay. I suspect we are both going to have the challenge, Minister, of selling the utility of this to our party rooms.

Senator Carr: I trust that you are more successful than I am.

Senator MASON: I am not saying you have been totally unsuccessful, Minister. I think there are some great attributes there. But it is a tough task in difficult economic times. I think you would agree with that. I have no further questions on CRCs.

Senator Carr: I just want to make one other observation on the issue of the CRCs. We will have annual rounds now, so there will be a different pattern in terms of future distribution.

Senator PRATT: I want to follow up from Senator Mason. Given the size of the cut as it has been outlined in estimates, you have outlined the way CRC bids have been restructured and will be again into the future. The scale of such a modest cut need not necessarily affect the viability of any of the particular proposals that have come in. As I would understand it, the government's contribution within the CRC is leveraging a much larger contribution from your collaborative researchers. So, yes, it makes a contribution to making it viable, but these kinds of cuts around the margins are not necessarily going to affect the sustainability or viability of any of the proposals before it.

Senator Carr: No existing CRC will have a funding reduction. None of the CRCs to commence on 1 July will be affected. What this does is reduce activity in the future. It is just axiomatic if we have a policy of fiscal consolidation that there will be reductions in some parts of the program across the Commonwealth, particularly when you have to find offsets. This money was used to fund other scientific activities, including Inspiring Australia.

Senator PRATT: Correct.

Senator Carr: That may not make people feel any better, but I am trying to explain the actual nature of these reductions.

Senator MASON: Minister, I am sure you have seen this table. It is entitled 'Measuring innovation: A new perspective' by the OECD. It puts Australia very close to the bottom in terms of collaboration. We have had this debate.

Senator Carr: You know the story and that is right. We know the story only too well.

Senator MASON: I think we have covered that. Suffice it to say, Minister, that the sector is concerned, but you would know that.

Senator Carr: I have issued numerous statements. I have spoken directly to the CRC association. This is not a reflection on our attitude to CRCs.

Senator MASON: It is a measure for fiscal consolidation.

Senator Carr: It is a measure in the circumstances where there are very few other options available to this portfolio.

Senator MASON: Chair, I have questions relating to the Commercialisation Training Scheme. There are only a few. That is all I have.

CHAIR: We will move on to that.

Senator MASON: I will move to the Commercialisation Training Scheme. The objectivity of the CTS is to provide high quality research commercialisation training for the next generation of Australian researchers as a means of equipping them with the skills, knowledge and experience to bring research based ideas, inventions and innovations to market. Minister, I understand that an evaluation of the scheme commenced during the current financial year and is, according to the department's budget statement, to be completed by 30 June 2011. That is on page 62 of the budget statement. But the budget statement, Minister, does not show any funding for the scheme beyond the 2011-12 financial year, when it is only \$2.86 million, already down from \$5.7 million this financial year.

Ms Baly: Senator, the Commercialisation Training Scheme is a terminating program. It will cease—

Senator MASON: It is terminating, is it?

Ms Baly: It is a terminating program.

Senator MASON: On page 50, where it says \$5.7 million in 2010-11, and \$2.863 million in 2011-12, it is terminating. If it is terminating, what is the point of having a post mortem review published one year before the scheme is effectively being defunded?

Ms Baly: Well, it is standard practice to evaluate programs. Even though it is a terminating program, I think there are still lessons to be learnt about the program and the benefits that have been gained from the program. It is the smallest of the block grant

programs. It is \$5.73 million in the 2010-11 financial year, so it is by far and away the smallest of the block grant programs. It was designed specifically to allow universities to build commercialisation know-how and the like into research higher degrees. I think what the evaluation showed was that it has done that. But there is no reason why universities are not able to use other sources of funding to provide that training. This is a very small pilot program.

Senator MASON: Sure. If it has done that and it has been successful, why is it being abandoned? Why is it being, to use your word, terminated? Why is it being terminated? It is a harsh word, Ms Baly, but I believe it is the word you used. Is that right?

Mr Paterson: It was a terminating program when it was introduced. It was intended for a short period of time. It was a terminating program. It was for a defined period. We reviewed our programs. We learned the lessons from them. Sometimes those reviews provide a basis upon which we might seek another program or a new program or an alternative program. But this was a terminating program at the start, and we still review our terminating programs.

Senator MASON: Mr Paterson, I say this as someone who is not a public servant and does not understand the ways of the bureaucracy. Would you not want to evaluate it and see whether it has been successful and useful and so forth before you terminate it?

Mr Paterson: You are missing the point. There used to be three programs. There used to be ongoing programs, which were essentially permanently in the base; lapsing programs that were for a defined period but there was money provided in the shadow forward estimates if you were able to demonstrate on an evaluation that that program should continue; and terminating programs, which were fixed period programs.

Senator MASON: How long has this been going for?

Mr Paterson: This is a program that was terminating from the day it started. So it was for a defined period.

Senator MASON: That is rather sad.

Mr Paterson: Many programs are like that. Many programs are for defined periods of time—four years, five years, six years.

Senator MASON: How long was this one for, Mr Paterson?

Mr Paterson: Six years.

Senator MASON: So it was to be put to death, or terminated, after six years irrespective?

Mr Paterson: No. That is emotive language, Senator.

Senator MASON: I think Ms Baly used the word 'terminated'. I do not think I am making that up.

Senator Carr: Terminating is a proper term.

Mr Paterson: That is what Finance call it. Many, many programs are for defined periods of time. This was a program for a defined period of time and we evaluated it. It is sensible of us to evaluate the program, to learn lessons from that program and to be able to demonstrate to you and others when we are questioned, 'What did you get out of this program?' Well, we have done an evaluation and this shows you what we got out of the program.

Senator MASON: I would have found the evaluation, or should I call it the post mortem, more valuable if the program had still been running, Mr Paterson. But obviously I am not a senior public servant.

Senator Carr: Senator, there are different times in the budgetary cycle when it is easier to have terminating programs recommenced in another guise. But to do that you need to be able to demonstrate that they have actually performed well.

Senator MASON: Let us look at the policy objectives—commercialising, in effect, the work of scientists. How is that going to be taken up? Is the government looking at that?

Senator Carr: I am looking at that. I am concerned that the principles that underpin this program are worthy of support. So we are looking at it through our workforce training strategy. I have asked the department to look at that and the mechanisms by which we can improve the approach we take on that matter. There is also the question about how we undertake our current research training scheme, or the PhD program. We are also looking at other measures that we can take, and that is subject to further discussions. We have a range of programs where we are seeking to engage the university system and the research system and companies. We have researchers in a business program—for instance, in Enterprise Connect. We have the industrial PhD program running now through the ARC. We have—

Senator MASON: These are a few of the threads.

Senator Carr: What I am saying is that the principles that underpin this make very good sense and the evaluation showed that it was actually necessary to do. We now have to think about these issues and more creatively, given the budgetary circumstances that we are in.

Mr Paterson: And universities also, Senator, need to think about this because this was a time limited program to help them develop programs within the universities to deliver commercialisation training. You hope it is not the case that the only thing universities do is those things they get paid something more to do. You would hope that they have learnt something from this commercialisation funding program in that they change the way they deliver their PhD programs and make sure that they think about commercialisation and providing skills to their PhD students to think about commercialisation.

Senator MASON: Sure. When will the review be available?

Ms Baly: It is in the final stages of being written up, as I understand it. It is an internal review.

Mr Paterson: We are expecting it to be concluded by the end of this financial year. The program terminates at the end of this calendar year. That is the way the funding goes. We fund universities on calendar years. That is why it is \$5.7 million last year and \$2.863 million this year. It is because half of this calendar year is in the current financial year's profile and the remaining part of the calendar year is—

Senator MASON: At the end of 2011.

Mr Paterson: So the program terminates at the end of this calendar year. The evaluation should be completed by the end of this financial year.

Senator MASON: I was being very ungracious. It is not a post mortem, is it?

Mr Paterson: No. Not at all.

Senator MASON: It will still be going, Mr Paterson. You should have pulled me up.

Mr Paterson: I tried, Senator. I tried.

Senator MASON: That was not very chivalrous of you at all.

Senator Carr: It simply had a use-by date on it.

Senator MASON: We all have use-by dates, Minister. Thank you very much.

CHAIR: There being no more questions on that topic, we will go back to CRCs just briefly for Senator Boyce.

Senator BOYCE: I was involved in another committee. I do apologise if any of the questions I ask have already been asked. I want to specifically ask about the accountability of CRCs. What happens if you receive complaints about CRC procedures and processes?

Ms Baly: Any complaints about CRCs will be carefully investigated and looked into.

Senator BOYCE: Who would they come to, Ms Baly?

Ms Baly: It depends who the complaint is made to. Are you able to give some context?

Senator BOYCE: Let us be specific. I have had a number of people tell me that they are not comfortable with the work or the philosophy of the invasive animals CRC. If a complaint of that sort were made to the department, who would it come to? Would it come to you?

Ms Baly: It would come to whoever it came to, but it would end up coming to my division. There are various processes of review.

Senator BOYCE: What are they?

Ms Baly: Each new CRC has a 12-month visit and then there is a three-year review, which is quite a substantive process of review. It is undertaken by the committee and with external reviewers. So it is a peer review process.

Senator BOYCE: That is every three years, though?

Ms Baly: That is every three years.

Senator BOYCE: But what about a specific complaint?

Senator Carr: What is the nature of the complaint?

Senator BOYCE: I just said around the philosophy.

Senator Carr: The philosophy?

Senator BOYCE: And activities of the CRC.

Senator Carr: Senator Boyce, the philosophy is a very difficult question for any of the officers to respond to. If you have a question that goes to the activities—that is, actions—and you have a complaint on the actions—

Senator BOYCE: It is a little hard to be specific. It is in terms of the research areas of the CRC regarding, in particular, wild dogs and the sense some sectors of the industry have that it is not the welfare of the producers that is the core interest of the CRC. Is that specific enough?

Senator Carr: No. Senator, if you are saying you are concerned about the research priorities of the CRC, there are review processes. But there is a whole series of industry engagements.

Senator BOYCE: Exactly. What I am asking at the moment, Minister, is what would happen if Ms Baly received a specific complaint in this area.

Senator Carr: It would be investigated. But on the question of the general—

Senator BOYCE: How would it be investigated, Minister?

Senator Carr: Well, if it is a probity issue, it would be very thoroughly investigated.

Senator BOYCE: How?

Ms Baly: It would be a question that the CRC committee would consider. It would depend on the timing of it as well. If a CRC was coming up for its three-year review, it would probably be something that could be considered in that process. If it was not, if it was out of cycle, it is something that the committee would deliberate about and decide on what was an appropriate form of action. If it needed to have a review process at that point, which included external reviewers, it would be entirely open to it to do that.

Mr Murfett: The funding agreements for each of the CRCs are bound by ethics. The NHMRC has some guidelines. We would actually investigate on a case-by-case matter. Whether it would be in the performance reviews or otherwise would depend on, as Ms Baly said, when it came in. We would have to actually assess it on a case-by-case basis, depending on what the allegations were.

Senator BOYCE: Would you perceive that working towards commercialisation or undertaking pure research was a more important area for any CRC?

Ms Baly: The CRC program is a program which is designed to promote engagement with end users. That does not preclude them from doing basic research as part of the research. It does in the continuum of basic to applied research. But they are typically in the more applied end of the research spectrum.

Senator BOYCE: Would you have concerns if any CRC were undertaking research that was considered unnecessary by end users?

Senator Carr: Senator Boyce, it is a highly subjective judgement—and unnecessary—whether it is too theoretical.

Senator BOYCE: Yes. The subjective judgment of the end users.

Senator Carr: But there are many, many end users.

Senator BOYCE: Absolutely. But if any particular group of end users had that view, I want to know what would happen next.

Mr Paterson: A collaborative research centre is not a relationship of all players.

Senator BOYCE: No.

Mr Paterson: They are participants in a competitive program. In fact, we have had CRC applications from different collaborative groups covering similar areas of endeavour. Some have got up competitively and others have not got up competitively. Now, there are sometimes tensions between groups about research and who should be doing what. A group could be successful in getting financial support for a CRC and a disenfranchised other group of potential researchers who did not get up might feel as though the program and the people who did get up should be changed to what theirs was. So it does very much depend on the nature of the circumstance. We do not have a big army of people waiting for complaints to be received in relation to CRC programs and their operation because we do not have that.

Senator BOYCE: Well, I would hope that you do not need one, Mr Paterson.

Mr Paterson: We do not need one. So it is case by case. If there is an explicit problem and something that is brought to our attention, it is something that we will be investigating. But we cannot give you a form letter response to how we would deal with a person, whether they are an end user, another researcher group—

Senator BOYCE: We are not talking about a person. I was talking about a number of communities.

Mr Paterson: They may be. There could be a large number of end users who do not necessarily share the same view of the collaborative pattern as in the first instance. But it depends on the nature of the complaint. So it does not automatically flow that because an end user or a group of end users did not like the direction, that necessarily would dictate the outcome of any review.

Senator BOYCE: Have you received any complaints about the invasive animals CRC?

Ms Baly: Not to my knowledge.

Mr Murfett: Not to my knowledge.

Senator BOYCE: And you would expect to know?

Ms Baly: Yes. If there were unrest out there, we would certainly expect to know.

Senator BOYCE: Thank you.

CHAIR: Any more questions on this topic?

Senator COLBECK: I just want to ask some questions specifically of the minister that I was not able to ask him because of his absence. It goes back to some of the previous things. But they are specifically questions to the minister. I do have some questions on the science area of the portfolio. Minister, earlier in the day you made a comment about 46 per cent of revenue from the carbon tax being used to support industry. Can you give us the derivation of that number?

Senator Carr: No. I just indicated that a majority of funding would go to households.

Senator COLBECK: No. You said 46 per cent or a little more than that.

Senator Carr: Well, I do not wish to enlarge any further on that. These are processes that are still underway within government. Minister Combet has indicated that a majority of the funding will go to households.

Senator COLBECK: And you said—

Senator Carr: Whatever the percentage is, we will see.

Senator COLBECK: You said this morning 46 per cent.

Senator Carr: I think I was a little more equivocal than that, but nonetheless—

Senator COLBECK: No. Would you like me to read you out what you said?

Senator Carr: The majority of funding will go to households.

Senator COLBECK: You said:

We have seen that the government has made statements about the level of support available for industry versus the level of support available for households. Within that context, we will see something in the range of 46 per cent—

Senator Carr: Something in the range.

Senator COLBECK: I have not finished your quote yet, Minister. It continues: to a little bit more than that. No, actually, that's about right, isn't it?

So that is your quote, Minister. I am just asking for the derivation of that, that is all.

Senator Carr: Well, something in the range suggests 50 per cent.

Senator COLBECK: We are talking about support to industry. So it is now something in the range to in excess of 50 per cent?

Senator Carr: I have gone as far as I can, Senator. I am sorry, I cannot be more helpful than that.

Senator COLBECK: You mentioned earlier the R&D tax credits legislation to Senator Mason. I did ask earlier, and Senator Sherry quite rightly could not answer the question: is it still your intention to make it retrospective to 2010?

Senator Carr: No. Given the delay—Senator Fielding has indicated that he was not prepared to support the legislation—the matter will be brought on for debate in the chamber with the new Senate.

Senator COLBECK: In Greens week?

Senator Carr: It is my understanding that it is likely to—and I am optimistic—attract majority support.

Senator COLBECK: No. I am saying in Greens week, which is the special week that has been helping the Greens.

Senator Carr: I have no idea what Greens week is.

Senator COLBECK: The beginning of July.

Senator Carr: All I know is it is bush week when you do not support it, Senator, given your public statements in support of the legislation through the Senate committee stage.

Senator COLBECK: I did not say I supported the legislation through the Senate committee process. You should be careful about misquoting me, Senator.

Senator Carr: That is what I heard.

Senator COLBECK: I said I was prepared to be cooperative with you if you were prepared to be cooperative with me.

Senator Carr: I understand you were very clearly supporting it, Senator, through this committee itself.

Senator COLBECK: It seems you have a serious memory problem.

Senator Carr: You have been very, very good on this topic.

Senator COLBECK: Even from this morning you seem to have a serious memory problem. You cannot remember what your own words were from earlier in the day. So you are going to change—let us get back to the point—the effective starting date of the measure from 1 July 2010?

Senator Carr: There will have to be an amendment from the message from the House.

Senator COLBECK: So what is your proposed starting date?

Senator Carr: Well, my expectation is that it would be from 1 July this year.

Senator COLBECK: I want to ask a quick question on the food processing industry strategy group. How many times has it met since it was started? I know you might not have departmental officers around for this since it was launched, I think, at the Food and Grocery Council dinner in November last year.

Senator Carr: We will have to take it on notice. I thought this matter had been dealt with.

Senator COLBECK: There were specific questions we wanted to ask you, Minister.

Senator Carr: Are you sure you are not going to ask me how many times the strategy group has met within the department?

Senator COLBECK: Well, there was something that you made quite a deal of. I was interested to ask you specifically about it. You have said to us that you had to go off to a cabinet meeting.

Senator Carr: I did.

Senator COLBECK: You have form on this. The last time you told me you went to a cabinet meeting, there was not one.

Senator Carr: That is not true.

Senator COLBECK: Perhaps the difference is between a cabinet meeting and a subcommittee of cabinet.

Senator Carr: Well, what is the difference, in your mind, given your extensive experience of both?

Senator COLBECK: A subcommittee of cabinet is different to a full cabinet committee meeting.

Senator Carr: Is that right? I think you will find that is not quite the way it is defined.

Senator COLBECK: We can perhaps differ on that, Minister. I can go back to the *Hansard* on the last conversation you had with Senator Abetz on this. If you like, I can do that.

Senator Carr: What is your point, Senator?

Senator COLBECK: I am just saying that twice now you have had to leave these hearings, despite the fact that they are scheduled for a certain period of time, for a meeting of the cabinet or a cabinet committee or some form of meeting.

Senator CAMERON: I raise a point of order.

Senator COLBECK: And there are questions we do want to ask of you as part of that consideration of portfolio estimates.

CHAIR: Senator Colbeck, I have a point of order from Senator Cameron.

Senator CAMERON: Chair, it is absolutely inappropriate for Senator Colbeck to be raising the minister's attendance here. The minister has been here most of the day. There has been a minister here representing each time. He should go on and ask the questions.

Senator COLBECK: On the point of order—

CHAIR: That is no point of order, although I must say that when I was in opposition, Senator Amanda Vanstone walked out of the estimates at 4.00 pm because she had mistaken a date and there was no substitute minister provided for.

Senator COLBECK: And I am sure that at times, Chair, you made some comment about that. It is entirely appropriate for us to raise the attendance of the minister because that is what this process is about. Senator Cameron and I might differ on that.

CHAIR: Well, let us continue.

Senator COLBECK: You have ruled on the point of order and I am happy to accept your ruling on that. Look, on the question that I have put to you in respect of the food industry strategy group, I accept that you do not have that information. But I did want to talk to you about it personally. It is something that I also have a personal interest in, as you might be aware. If you need to take it on notice, I am quite content with that.

Senator Carr: Senator Colbeck, I am more than happy to discuss matters that I can give you an answer to. But it is a bit of a ruse for you to then say, 'Well, I missed the officers before.'

Senator COLBECK: I did not say that I missed the officers before. I said I missed you. Now I perhaps never thought I would find myself saying that, Minister, but in fact I just have. There is a moment for you, Minister, and perhaps a moment for Mr Paterson's memo.

Mr Paterson: I think we ought to finish it just there.

Senator Carr: I do not think I have had such a compliment.

CHAIR: In fact, we can, Mr Paterson. I want to seek a bit of guidance from the committee. We are due to have a tea break now, but if there is any chance that we can finish before 10.00, perhaps we can work through the tea break.

Senator COLBECK: I think Mr Paterson should be allowed to have his last tea break.

CHAIR: The committee will suspend for the tea break.

Proceedings suspended from 9.14 pm to 9.30 pm

CHAIR: We will resume with consideration of outcome 2, science and research.

Senator Carr: There has apparently been some progress with Senator Colbeck in this matter of the funding arrangements. I want to indicate that the figures I referred to are based on the detail that was in the MYEFO statements for 2010-11 and essentially the Macfarlane-Wong arrangements.

Senator COLBECK: You can put your justification or whatever you like on it, Minister.

Senator Carr: You asked a question.

Senator COLBECK: Your statements, your comments, not ours. I want to ask some questions about staffing in the science division.

Senator Carr: Are you asking questions of me?

Senator COLBECK: No. I just notice that Mr Paterson shot through after his last supper.

CHAIR: I am sorry. I did not notice that Mr Paterson was not there.

Senator COLBECK: It is lonely at the top, Minister.

Senator Carr: That is all right. Do you want to have questions now of the science division?

Senator COLBECK: I thought that is what we are doing.

CHAIR: We are doing outcome 2, science and research.

Senator Carr: Is that all you have? So what is your question, Senator?

Senator COLBECK: Let us work our way through them. I would like to get initially the number of staff in the science division over each of the years 2009-10 and 2010-11.

Ms Lansdown: We have a funding allocation of 79 ASL, but of course at any one time in the year that varies, depending on whether there are vacancies or not in the division.

Senator COLBECK: But that is your nominal designation. So that has not varied between 2009-10 and 2010-11?

Ms Lansdown: No. It will vary as we go into 2011-12 because we are incorporating the Office of the Chief Scientist back into the division. We have had an extra ASL added for the science policy team in the last four months, I think. I would have to check exactly, but in the last few months.

Senator COLBECK: So there are 12, I understand, ASL in the Chief Scientist's division?

Ms Lansdown: Yes. It is 12.6. I am not sure what the 0.6 is.

Senator COLBECK: Twelve-odd. So that takes it up to about 91. And the five on top of that?

Ms Lansdown: We will just check the brief to be exact.

Senator COLBECK: So potentially 96?

Ms Lansdown: Yes.

Senator COLBECK: And that is 2011-12?

Ms Lansdown: Yes. That will be 2011-12.

Senator COLBECK: So 79 over 2009-10 and 2010-11—

Ms Lansdown: Approximately.

Senator COLBECK: ASL. And then potentially up to 96 with those inclusions. What were those additional five for, you said, sorry?

Ms Lansdown: A science policy unit.

Senator COLBECK: Can you tell me how many individual graduates from the graduate programs from 2008, 2009 and 2010 moved into the science division at the end of the program?

Ms Lansdown: I would have to take that on notice.

Senator COLBECK: That is fine.

Ms Lansdown: It is normal to run recruitment rounds towards the end of the calendar year with the GA program. Some may choose to stay in the division but they have to win their position if they want to be promoted. We have had ones that were with us two years ago, for example, that have competed in rounds and come back to us. So it is a fairly mobile pool of people.

Senator COLBECK: What proportion of the staff would be scientifically qualified? I recognise that not all would be expected to be because not all the roles are scientifically based.

Ms Lansdown: Absolutely not. In fact, very few of them require scientific expertise. You actually need to understand science and be able to undertake research in some roles, but

mainly it is important that you are able to access scientific expertise when you need to. I am not exactly sure what you mean about scientific expertise. Do you mean have postgraduate—

Senator COLBECK: No. Scientifically qualified, I said.

Ms Lansdown: Yes. A postgraduate science qualification or a PhD?

Senator COLBECK: No. A postgraduate science qualification. If you can take that on notice, that is fine.

Ms Lansdown: Yes.

Senator Carr: How do you define science in that regard, Senator?

Senator COLBECK: I just said I want a postgraduate.

Senator Carr: No. Science.

Senator COLBECK: It could be engineering science. I am trying to put a definition around it.

Senator Carr: I define science in the broadest sense, which includes other than just the physical sciences—the humanities and social sciences.

Senator COLBECK: Well, you put your definitions around it.

Senator Carr: Well, it is important if the officer is to answer the question.

Senator COLBECK: I have said a postgraduate qualification.

Senator Carr: How many PhDs have we got?

Senator COLBECK: Perhaps that can be the simple way to answer the question, Minister.

Ms Lansdown: That would be much easier.

Senator COLBECK: That would be a very simple way to answer the question. I would not have thought that would take too much grief at all. If we are not satisfied, we will be back again at another time, Minister, and we can deal with it then. Who is responsible for the decision to remove ‘science’, in the context of the term, from the parliamentary committee system? We used to have the House of Representatives Standing Committee on Industry, Science and Innovation, but ‘science’ has been taken out of that.

Senator Carr: We have the word ‘innovation’, I think you will find, in one of the committees.

Senator COLBECK: Well, science is taken out of it. I think it is now industry and innovation rather than industry, science and innovation. I just wondered what the reasoning behind that is through the House of Representatives.

Senator Carr: Senator Colbeck, I am afraid you will have to go there. I am not aware of how the House of Representatives has organised its committee system.

Senator COLBECK: Well, the government would have some influence over that process, I would have thought.

Senator Carr: I cannot help you, though.

Senator COLBECK: Take it on notice and give us a response to that.

Senator Carr: The question is, Senator: how would I find out how the House of Representatives has divided up its committees?

Senator COLBECK: Well, surely the government has some influence over the—

Senator Carr: I think you will find that, with the House of Representatives in the new paradigm, a decision has been made—

Senator COLBECK: A new paradigm. Yes, I had forgotten about that.

Senator Carr: So I do not know what I can add. Where do I find that information?

Senator COLBECK: I will leave it with you, Minister, and see what you can inform the committee. Can you give us some information on the progress of the rollout of the Inspiring Australia program and what that has achieved so far?

Prof. Durant: You asked a question about the rollout of the program. The program received funding in the budget. That funding starts on 1 July. In the meantime, we have been doing some preparatory work in terms of having produced the initial report, we have developed two expert working groups looking at science in the media and research and the evaluation of science communication activities. We have dedicated contact officers as part of the coordinating committee for innovation so we can link in with all of the federal departments and research agencies. We have a dedicated officer in each of the states and territories through CCST, the Coordinating Committee for Science and Technology, involving federal and state agencies. We have run the first Inspiring Australia national conference, which was a two-day conference in March attracting some 200 participants to talk about some areas of common interest.

Senator COLBECK: So what would you say are the achievements to date?

Prof. Durant: To date we have got started. We have consolidated a national framework. We have some more building to do. We have awareness of the initiative, perhaps at a low level but increasing. The success of the initiative will be if we can really get a lot more coherent action between the various players in the science area—government, business, industry, research agencies, universities, science centres and museums et cetera. It is an initiative to develop more collaborative action. At the moment there is a lot of things happening but there is no real framework within which they can operate. So the success to date is to get started. The success hopefully at the end of the three years of the funding will be a much stronger science communication network within Australia, which we hope will be supported by industry, by the universities, by the CRCs, by the various research agencies and by the states and territories as well as the federal agencies.

Senator COLBECK: So how do you see integrating with existing programs as encouraging people into science? An example is PICSE. I do not know if you are aware of that.

Prof. Durant: I had a meeting with one of the officers from PICSE a couple of weeks ago. The challenge we have is to align the work of a whole raft of different players. It is not easy. Had it been easy, it would have been done quite a few years ago. But now is the time to put in a bit of effort across the country in recognition that the country in respect of science not only needs a very strong science base; it needs a strong supply chain of future scientists and technologists and it needs a strong relationship between science and society. The Inspiring Australia initiative is really developing that community awareness of science. Hopefully it will make a contribution to the building of the supply chain for future scientists and technologists. It will allow the various research agencies to tell their stories better.

I think one of the tragedies, as I see it, is that at the moment we are not telling the great stories of Australian science that are happening daily in our various lives. Of the many thousand research programs underway, only a few projects actually see the light of day in the public sphere. I think we have to find a way of unlocking that potential. I would like to think we are changing the ‘inspiring’ part of Inspiring Australia from a verb to an adjective and that we succeed in creating a country that is inspiring because we are telling the stories of the great work going on in the labs, the universities, the research agencies, in the CRCs and in industry.

Senator COLBECK: The engagement part of it is important but difficult. I have had some contact and exposure with PICSE. They are working with industry so they are leveraging another player into the process. I use the analogy that sports start looking at kids when they are in primary school, assessing their skills and capacities through a sporting career. Unfortunately, industry tends to wait and see what comes off the end of the conveyor belt and then starts picking them. There does not seem to be a lot of engagement back down through our education system to start engaging with people and encouraging them into science, be it agricultural science, which PICSE does, or engineering science or any of the others.

Prof. Durant: I could not agree more, Senator. I have been aware of the work of David Russell for a number of years. I think their approach is excellent. But they still face this challenge, like many other disciplines, of securing a supply of future scientists, engineers, technologists and mathematicians. I think that is where the science agencies, the professions and industry have really got to work together to not just encourage the very best of our students, because the best of our students are very, very good. They are among the world’s best secondary students. We have to try to create some movement in the middle of the pack, if I can call it that, to encourage more of the students perhaps in the middle to move into advanced study in science. Unfortunately, we have a longer tail of underachievement and reduced potential. We really have to work with that cohort as well. Part of the Inspiring Australia strategy will be to work to unlock the potential of some of the people who are disadvantaged either socially or geographically.

Senator COLBECK: Well, we will follow with interest.

Prof. Durant: I hope so. It is an important initiative.

Senator COLBECK: I have spent a fair bit of time talking to David Russell and worked with the research and development corporations to encourage them to engage with his process, given that they have expressed the concerns that you are about access to graduates coming out of programs for entry into some of the important areas—entomology, all sorts of things—in and around science careers in demand.

Prof. Durant: We need multiple interventions, even from preschool. Wearing my Questacon hat for a while, we have recognised that early childhood is critically important in creating opportunities. You have to then reinforce that through schools into the university sector. We cannot rely on schools alone. We have to work on the informal learning environment as well, where children spend most of their life. These days, with the changing nature of education, we really have to make sure that we are delivering programs that work to support not only teachers in schools but also work in the community.

Senator COLBECK: Minister, has the science division been involved in any formal discussions or consultations with Minister Garrett's office or the department into the axing by the government of the Primary Connections and Science by Doing programs? If so, can you tell me what representations you made and when?

Prof. Durant: I can try and answer that. We have been aware of the programs for a number of years. I was involved on PMSEIC in 2003, when Science by Doing and Primary Connections were first mooted as part of a five-point strategy to improve the development of science education and awareness. So I have been following the progress of it. The reality is that those are programs funded by the other portfolio. We have waited until the budget came out to see what the situation is. I understand the Primary Connections funding ends—this is my understanding—at the end of June this year. It is the same with Science by Doing. There is another initiative, Scientists in Schools, that has another one year of funding.

What I can say from my perspective is that we have a meeting with the officers in DEEWR scheduled for 22 June where we can discuss this and try and look at how we can move these things forward. They are all examples of important programs, but they were set up as a fixed term funding arrangement and that arrangement has come to the end. So they have not been defunded, but they have not yet been refunded. Maybe we have to look wider than government to support these initiatives.

One of the things we are proposing through Inspiring Australia is to develop an industry focussed initiative. One of the things I have been following closely from the United States is the Change the Equation initiative that was announced by the Obama regime, where they brought 100 of the top CEOs in companies on board to support the teaching of science, technology, engineering and maths in schools. I think Australia might need that sort of initiative involving government, industry and the providers of education and engineering, maths, science and technology. But I can only do so much from within this portfolio. It requires cooperation from another portfolio.

Senator COLBECK: That is obvious. I recall my days in the construction industry. Some of the best attended nights were with the CSIRO guys, who talked about the science of materials like the new silicones, sealants or adhesives or even science around new nailing gun equipment and things of that nature. It was about all of the new kit, I suppose, that was coming on, all based on science. On an everyday basis, most of the people sitting around the table would have no concept of it or even thought that that was the basis of it, but when it came to finding out about the new innovation, they were always there and interested. So it is a matter of presentation.

Prof. Durant: I think there is a thirst for knowledge. I think it is at all levels of society. I am aware of one very successful business breakfast in Melbourne that was run by the Royal Institute of Australia to explain some of the concepts of nanotechnology to business leaders. I think we have to do more of that. It is not just families and kids that we have to engage.

Senator COLBECK: It is a broader engagement?

Prof. Durant: Yes.

Senator COLBECK: On what basis was the International Science Linkages program abolished in the budget?

Mr Paterson: We talked earlier about terminating programs, Senator. I am not sure if you were here for the conversation we had.

Senator COLBECK: I have heard that conversation a number of times, Mr Paterson.

Mr Paterson: Well, it is a terminating program.

Senator COLBECK: Are we categorising it in the same way?

Mr Paterson: ISL was a terminating program.

Senator COLBECK: Is it correct that there has been four reviews of that program made publicly available?

Ms Lansdown: I will need to check how many reviews. I am aware of the final evaluation that was done.

Senator COLBECK: And all of them were supportive of the program, as I understand.

Ms Lansdown: Well, the final evaluation, which was done at the end of last year, was supportive of the program, yes. It had delivered on its expected outcomes.

Senator COLBECK: And I do not think we need to go over the difficult decisions and discussion all over again. So were all those reviews publicly released?

Ms Lansdown: I am told there have been two full reviews. Certainly the most recent evaluation is on the department's website. The executive summary is. We are perfectly happy to provide the rest of the evaluation.

Senator COLBECK: So that is the last internal one?

Ms Lansdown: Internal? It was conducted independently, but it was the last evaluation of the program, yes.

Senator COLBECK: So what is the status of bilateral relationships that are being supported under the International Science Linkages program?

Ms Lansdown: Well, those bilateral relationships will continue. They are not predicated on funding under the ISL necessarily. They are agreements between governments to seek opportunities to collaborate in various ways. The activity around those agreements will continue.

Senator COLBECK: So they do not necessarily need a program to continue that process?

Ms Lansdown: They are not absolutely dependent on the ISL funding to continue.

Senator COLBECK: So how will they be supported?

Ms Lansdown: They will be supported in a range of ways. I think the most recent joint commission meeting that we had with the US, for example, was not predicated on any program funding to ensure collaboration. So the process we went through was to identify priorities for each of the two countries and identify senior researchers who are working in those areas. Those researchers brought funding from the institutions or research grants or a range of other sources. Those collaborations were either established or reinforced.

Senator COLBECK: So did the reviews that were undertaken have a look at the potential international reaction?

Ms Lansdown: Potential international reaction to the cessation of the funding?

Senator COLBECK: To the cessation of the program, yes.

Ms Lansdown: No. I do not think they specifically looked at that question, no.

Senator COLBECK: I just want to go back to the internal review again. So you did commission an internal review into the program?

Ms Lansdown: It was an external evaluation of the program.

Senator COLBECK: What is the public status of that review?

Ms Lansdown: That evaluation is in the public domain and it is on our website.

Senator COLBECK: That was the internal one that was commissioned?

Ms Lansdown: It is not internal, Senator, I am sorry. It was conducted externally. It was supported by officers from within the division, but it was not conducted by officers from within the division.

Senator COLBECK: So the whole report is available?

Ms Lansdown: We were just checking the terminology of internal and external. I think we would argue that it was an external evaluation conducted by the ARC, the NHMRC, DFAT and a range of others.

Senator COLBECK: So there was an external report commissioned by the department?

Ms Lansdown: We did use a consultant to assist us. We collected some data, and a range of other people participated in an advisory group to assess the veracity, if you will, of the information.

Senator COLBECK: You indicated before that there had been two reviews.

Ms Lansdown: I will just check about the previous one.

Ms Finlay: The earlier review was done in 2003 when the program was in its very early stages. I understand that review has been in the public domain.

Senator COLBECK: So there are only two reviews that have been done of the program over its life?

Ms Finlay: There have been elements of the program that have been reviewed. There are a number of elements to the program. Some of those elements have been reviewed. For example, there has been a bilateral fund with France. That program was reviewed in 2008-09.

Ms Lansdown: So it is not unusual, Senator, to identify parts of a large program and review those independently on the way through over a number of years. But, as I say, the final evaluation was of all the elements.

Senator COLBECK: So there have been two full reviews of the program.

Ms Lansdown: That is right.

Senator COLBECK: One earlier in 2003 and one recently. I think I am right. There is an earlier review of the full program and there has been one recent one, which evaluated the whole lot. In between, there have been some reviews of elements of the program?

Ms Lansdown: Yes.

Senator COLBECK: You do not know how many of them there might have been?

Ms Lansdown: I think we would have to take that on notice.

Senator COLBECK: I have some quick questions on PMSEIC. Minister, what is the date of the next meeting of PMSEIC?

Senator Carr: We will have to get the date for you. The Chief Scientist has been on the job a week. I think there are still some administrative arrangements to put in place.

Senator COLBECK: So finding everybody's diary and settling the Chief Scientist in. Is the Prime Minister committed to attending that meeting?

Senator Carr: Well, the Prime Minister has been committed to attend all the PMSEICs. At the last meeting there was a little event in Queensland.

Senator COLBECK: We did cover that. But there were only two ministers in attendance all up out of the 14 in membership. If you look at the last six meetings of PMSEIC, the best you have done is a 50 per cent attendance. So in the context of the importance of that organisation, how do you see that as a reflection? I do concede that the floods affected the last one, when there were only two in attendance. But at the previous one in March 2010 there were only three.

Senator Carr: Senator, you would be aware from your time in government that not all ministers will find each particular item directly relevant to their work. So the attendance will vary depending on the agenda.

Senator COLBECK: But, as we have discussed a number of times, isn't this about getting the message across government and maintaining linkages and communication?

Senator Carr: There are always departmental secretaries there.

Senator COLBECK: Yes. But it is not the same as a minister, is it? You know that as well as I do. Even with my limited experience, I understand that.

Senator Carr: Well, we are quite confident the departmental secretaries are able to communicate effectively within their portfolios.

Senator COLBECK: So it is not important for the minister to attend?

Senator Carr: No. I am making a positive point about the role of departmental secretaries in Commonwealth agencies.

Senator COLBECK: I am talking about the capacities and the importance of those people in those jobs. I am talking about ministerial attendance. We can go around in circles off down the supply chain. I am talking about ministerial attendance and the perception amongst the ministry of the importance of PMSEIC. I am making the point that there were four at the first meeting on 23 April 2008. The best you have done since then is six, which at that stage was 50 per cent attendance. It was increased to 14 in February and there was only two there, excusing the Prime Minister for her requirement to be in Queensland.

Senator Carr: So what is your question?

Senator COLBECK: How is that low level of ministerial attendance seen in the context of the importance of the structure?

Senator Carr: It is appropriate for matters that are under consideration in those times. It is important to have the breadth of experience across the Public Service represented at the PMSEIC, which has occurred.

Senator COLBECK: But I am not talking about the Public Service. I am talking about ministers. You have said that public servants are there. That is fine; I do not have a problem with that. Can we confirm the current ministerial membership of PMSEIC?

Senator Carr: I will have to take that on notice.

Senator COLBECK: How many is the current membership?

Senator Carr: We would have to take it on notice.

Senator COLBECK: It was 14 in February. Has it reduced or increased?

Ms Lansdown: My understanding is it still includes 14, but we will have to supply the numbers. I believe it is on our website, but we can provide it.

Senator COLBECK: It is pretty poor attendance, though. It is less than one in five.

Senator Carr: We are going around in circles here, Senator.

Senator COLBECK: You just do not want to respond. That is all there is to it. That is fine.

Senator CAMERON: Pretty slowly as well. It is a slow circuit, this one.

Senator COLBECK: I am entitled to take my time over my questions. You might want to go home. If you want to go home, go home.

Senator CAMERON: It would be really good if there was something to listen to.

Mr Paterson: Does that apply to me, Senator?

Senator COLBECK: No. We know that you are counting the moments down. And we are probably down to that.

Senator CAMERON: With this line of questioning, every minute is like an hour.

Senator COLBECK: Well, it does get like that late in the evening. Your turn will no doubt come, Senator Cameron. What is the process for an apology for PMSEIC from a ministerial perspective? To whom is the apology sent?

Senator Carr: To me as a rule and to the executive officer. As a rule, I tend to read out the apologies.

Senator COLBECK: So you actually acknowledge those apologies to the meeting. So in February there were 12 out of the 14 and in the previous meeting there were nine out of the 12 in March 2010. Up until that meeting of PMSEIC in February, has the Prime Minister attended all of the meetings?

Senator Carr: We would have to check the records, Senator.

Senator COLBECK: So you will have to take that on notice. If you give us the dates of the meetings that the Prime Minister has attended, that would be fine. I want to go back quickly to your quotes earlier in the evening.

Senator Carr: In response to your question about the attendance of the Prime Minister, I am advised that Prime Minister Rudd attended the four meetings that were held during his time as Prime Minister.

Senator COLBECK: And with Prime Minister Gillard there would only have been the one?

Senator Carr: There was only the one. You are aware of the reason for her absence on that day.

Senator COLBECK: Yes.

Senator Carr: But Prime Minister Rudd attended the previous four.

Senator COLBECK: I want to go back to your comments earlier about 46 per cent of the carbon tax being allocated to industry. Can you explain to us how that is intended to be divvyed up?

Senator Carr: No. What I was referring to is that under the Climate Change Action Fund and the other arrangements under the ETS that came about as a result of the detailed discussion between Senator Wong and Mr Macfarlane when you were supporting the arrangements, they are the numbers that were derived and, as I understand it, published in MYEFO.

Senator COLBECK: But that is not what you said this morning. You were talking about current events. You said to us this morning—

Senator Carr: It was in the context of my remarks about the previous scheme. In the context—

Senator COLBECK: You said this morning, 'I've got absolutely no doubt that there will be additional measures to provide support for the transformations that are required to secure an economy with much lower carbon emissions.'

Senator Carr: I think you will find I also referred to the past.

Senator COLBECK: No, you did not. I am reading directly from your quote. There is no reference in it to a past context at all. You are talking about a future context. You said: 'We have already seen the government has made statements about the level of support available for industry versus the level of support available for households, and within that context we will see something in the range of 46 per cent to a little bit more than that. No, actually that's about right, isn't it?' So we are talking about future context. You even discussed it in a radio breakfast interview with Marius Benson:

So we will provide additional support for manufacturing to ensure that we keep manufacturing strong in Australia and that's exactly what we're working on,

This is a future context, not a past context. This is 'we will'.

Senator Carr: What I said was we have understood the question of the introduction of a price, and then the ETS will have a broad range of effects on different sections of the economy, affecting different numbers of companies within that process. Just in the last scheme there was the CCAF arrangement—that is, the Climate Change Action Fund arrangement—to cater for business outside the top group of emissions emitters. I did specifically refer to CCAF.

Senator COLBECK: Yes. But then you went on to say, 'I've got absolutely no doubt that there will be additional measures.'

Senator Carr: You are having a great time trying to verbal me.

Senator COLBECK: No, I am not. I am reading your direct quote, Minister.

Senator Carr: This was clearly referred to this morning.

Senator COLBECK: Then you went on to talk about the future arrangements, Minister. You went on and said, 'I have absolutely no doubt that there will be additional measures.' I am interested to know how that might be applied.

Senator Carr: In the previous sentence, I said, 'Just in the last scheme there were CCAF arrangements.' Senator, you cannot try to verbal me in that way.

Senator COLBECK: You cannot cleanse the transcript, Minister. I am reading directly from it. You did refer to that. But then you went on to talk about—

Senator Carr: I thought you just said I did not refer to it.

Senator COLBECK: No. I did not say that. But I did say—

Senator Carr: I look forward to reading the *Hansard* on this matter too.

Senator COLBECK: I went on to quote your line, which was, ‘And there will be’. You said, ‘I’ve got absolutely no doubt there will be additional measures.’

Senator Carr: Okay, Senator. We will read the *Hansard*. What is your point?

Senator COLBECK: I am sure we will. You are on the public record, as I said before, with Marius Benson saying:

... we will provide additional support for manufacturing to ensure that we keep manufacturing strong ...

Senator Carr: So what is your point?

Senator COLBECK: Well, I am just trying to get a sense of how that 46 per cent might be applied.

Senator Carr: I do not think I have anything further to add to what I have already said to you.

Senator COLBECK: So you do not want to talk about it any more?

Senator Carr: No. I do not want to add anything further to what I have already said.

Senator COLBECK: You made a blue and now you want to clam up and not talk about it.

Senator CAMERON: Fifty minutes to go.

Senator COLBECK: You are wrong, Senator Cameron.

Senator CAMERON: Are you nearly finished?

Senator COLBECK: I have no further questions.

Senator CAMERON: You bewdy!

CHAIR: Does anyone else have any further questions?

Senator COLBECK: It is a nice point to finish on.

CHAIR: In that case, thank you, Minister. Thank you, Mr Paterson. We all wish you the best for your new job starting on Wednesday. I thank the officers of the department for attending tonight.

Committee adjourned at 22:11