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SENATE

STANDING COMMITTEE ON EMPLOYMENT, WORKPLACE
RELATIONS AND EDUCATION

ESTIMATES

(Additional Budget Estimates)

WEDNESDAY, 14 FEBRUARY 2007

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**SENATE STANDING COMMITTEE ON
EMPLOYMENT, WORKPLACE RELATIONS AND EDUCATION**

Wednesday, 14 February 2007

Members: Senator Troeth (*Chair*), Senator Marshall (*Deputy Chair*), Senators Barnett, George Campbell, Fifield, Lightfoot, McEwen and Stott Despoja

Senators in attendance: Senators Allison, Barnett, Brandis, Carr, Crossin, Fifield, Lightfoot, Marshall, Milne, Nettle, Patterson, Siewert and Stephens

Committee met at 9.03 am

EDUCATION, SCIENCE AND TRAINING PORTFOLIO

In Attendance

Senator Brandis, Minister for the Arts and Sport

Department of Education, Science and Training

Australian Research Council

Dr Ian Mackinnon, Executive Director, Australian Research Council

Mr Greg Harper, Deputy Chief Executive Officer

Mr Len Marsden, Chief Operating Officer

Professor Elim Papadakis, Executive Director for Social, Behavioural and Economic Sciences

Professor Margaret Clayton, Executive Director for Biological Sciences and Biotechnology

Australian Institute of Aboriginal and Torres Strait Islander Studies

Mr Steve Larkin, Principal

Ms Bronwyn Nimmo, Deputy Principal, Collections

Mr Jeff Hobson, Director, Corporate Services

Australian Nuclear Science and Technology Organisation

Dr Ian Smith, Executive Director

Dr Ron Cameron, Chief of Operations

Mr Steven McIntosh, Senior Adviser, Government Liaison

Commonwealth Scientific and Industrial Research Organisation

Dr Ron Sandland, Deputy Chief Executive

Mr Mike Whelan, Chief Finance Officer, and Executive Director, Corporate Operations

Dr Jack Steele, Chief of Staff, Business Services

Dr David Brockway, Chief, Energy Technology

Dr Chris Prideaux, Acting Chief, Livestock Industries

Dr Alastair Robertson, Group Executive, Agribusiness

Dr Rob Vertessy, Chief, Land and Water

Australian Institute of Marine Science

Dr Peter Doherty, Research Director

Ms Sue English, Manager, Government Business

Questacon

Professor Graham Durrant, Director
Ms Margaret Backhouse, General Manager, Expansion Project
Ms Lorraine Neish, General Manager, Questacon

Science Group

Ms Lisa Paul, Secretary
Mr Grahame Cook, Deputy Secretary
Ms Jessie Borthwick, Group Manager, Science Group
Mr Stephen Irwin, Branch Manager, Science and Technology Policy Branch, Science Group
Ms Sara Cowan, Branch Manager, International Science Branch, Science Group
Ms Kylie Emery, Branch Manager, Science Programmes Branch, Science Group
Mr Patrick Davoren, Director, Radioactive Waste Management Section, Science Group

Cross Portfolio

Ms Lisa Paul, Secretary
Dr Wendy Jarvie, Deputy Secretary
Mr Grahame Cook, Deputy Secretary
Mr Bill Burmester, Deputy Secretary
Mr Jim Davidson, Deputy Secretary
Mr Craig Storen, Chief Finance Officer and Group Manager, Finance, Property and Planning Group
Mr Ben Wyers, Branch Manager, Property and Planning Branch, Finance, Property and Planning Group
Mr George Kriz, Chief Lawyer, Procurement, Assurance and Legal Group
Dr Richard Bridge, Chief Audit Officer, Audit and Investigations Group
Mr Glen Archer, Chief Information Officer, Information Services Group
Ms Jill Dickins, IT Executive Director, IT Applications Branch, Information Services Group
Mr Glen Peisley, Acting Branch Manager, Infrastructure Branch, Information Services Group
Ms Margaret Pearce, Group Manager, People, Communications and Network Group
Ms Chris Silk, Branch Manager, People Management Branch, People, Communications and Network Group
Ms Gillian Mitchell, Acting Branch Manager, Parliamentary and Communications Branch, People, Communications and Network Group
Ms Virginia Cook, Director, Media and Marketing Section, Parliamentary and Communications Branch, People, Communications and Network Group

Innovation and Research Systems Group

Ms Lisa Paul, Secretary
Mr Grahame Cook, Deputy Secretary
Dr Evan Arthur, Group Manager, Innovation and Research Systems Group
Mr Greg Piko, Director, Research Infrastructure, Innovation and Research Branch, Innovation and Research Systems Group

Ms Leanne Harvey, Branch Manager, Research Quality and Coordination Branch, Innovation and Research Systems Group

Ms Julie Randall, Acting Branch Manager, Research Systems Branch, Innovation and Research Systems Group

Higher Education Group

Ms Lisa Paul, Secretary

Mr Grahame Cook, Deputy Secretary

Mr Colin Walters, Group Manager, Higher Education Group

Ms Lois Sparkes, Branch Manager Quality Branch, Higher Education Group

Mr Rod Manns, Branch Manager, Funding and Student Support Branch, Higher Education Group

Ms Anne Baly, Branch Manager, Teaching, Equity and Collaboration Branch, Higher Education Group

Dr Caroline Perkins, Policy Analysis Branch

Vocational Education and Training - Industry Skills Development Group

Ms Lisa Paul, Secretary

Mr Jim Davidson, Deputy Secretary

Ms Rebecca Cross, Group Manager, Industry Skills Development Group

Ms Robyn Priddle, Branch Manager, Client Engagement Branch, Industry Skills Development Group

Ms Helen McLaren, Branch Manager, Technology and Information Services Branch, Industry Skills Development Group

Ms Catherine Vandermark, Branch Manager, VET Quality Branch, Industry Skills Development Group

Mr Ben Johnson, Branch Manager, Skills Branch, Industry Skills Development Group

Vocational Education and Training - National Training Directions Group

Ms Lisa Paul, Secretary

Mr Jim Davidson, Deputy Secretary

Ms Mary Johnston, Group Manager, National Training Directions Group

Ms Linda White, Branch Manager, Australian Apprenticeships Services Branch, National Training Directions Group

Mr Neil McAuslan, Branch Manager, Funding and Performance Branch, National Training Directions Group

Mr Craig Robertson, Branch Manager, Strategic Directions and Infrastructure Branch, National Training Directions Group

Ms Catherine Wall, Branch Manager, Australian Technical Colleges Branch, National Training Directions Group

Ms Chris Jeacle, Acting Branch Manager, New Apprenticeships and Programs Branch, National Training Directions Group

Schools Resourcing Group

Ms Lisa Paul, Secretary

Mr Bill Burmester, Deputy Secretary

Ms Margaret McKinnon, Group Manager, Schools Resourcing Group

Ms Deb Rollings, Acting, Branch Manager, Schools Resourcing and Infrastructure, Schools Resourcing Group

Ms Marie Cook, Branch Manager, Investing in Our Schools Implementation Branch, Schools Resourcing Group

Ms Carol Brain, Branch Manager, School Funding and Business Management Branch, Schools Resourcing Group

Ms Shona McQueen, Branch Manager, Schools Strategy and Support Branch, Schools Resourcing Group

Schools Outcomes Group

Ms Lisa Paul, Secretary

Mr Bill Burmester, Deputy Secretary

Mr Ewen McDonald, Group Manager, Schools Outcomes Group

Mr Noel Simpson, Branch Manager Curriculum Branch, Schools Outcomes Group

Ms Di Weddell, Branch Manager, Literacy Performance and Reporting Branch, Schools Outcomes Group

Ms Sue Blackall, Director, Literacy and Numeracy Team, Literacy Performance and Reporting Branch, Schools Outcomes Group

Mr Gary Powell, Branch Manager, Students and Access Branch, Schools Outcomes Group

Ms Judy Petch, Director, Drug Education and Student Wellbeing Section, Students and Access Branch, Schools Outcomes Group

Ms Louise Hanlon, Director, Special Initiatives Unit, Students and Access Branch, Schools Outcomes Group

Ms Christine Dacey, Branch Manager, Targeted Assistance Branch, Schools Outcomes Group

Mr Giancarlo Savaris, Director, Educational Accountability and Performance Section, Literacy, Performance and Reporting Branch, Schools Outcomes Group

Ms Marie Hird, Acting Branch Manager, Teaching Taskforce Branch, Schools Outcomes Group

Indigenous and Transitions Group

Ms Lisa Paul, Secretary

Dr Wendy Jarvie, Deputy Secretary

Mr Bill Burmester, Deputy Secretary

Mr Tony Greer, Group Manager, Indigenous and Transitions Group

Mr Matt Davies, Branch Manager, Transitions Branch, Indigenous and Transitions Group

Ms Susan Smith, Branch Manager, Indigenous Education Policy Branch, Indigenous and Transitions Group

Dr Rosalie Grant, Acting Branch Manager, Indigenous Business Management Branch, Indigenous and Transitions Group

Ms Marg Sykes, Branch Manager, Enterprise and Career Development Branch, Indigenous and Transitions Group

Strategic Analysis and Evaluation Group

Ms Lisa Paul, Secretary

Dr Wendy Jarvie, Deputy Secretary

Dr Trish Mercer, Group Manager, Strategic Analysis and Evaluation Group

Ms Oon Ying Chin, Branch Manager, Economic Analysis, Growth and Evaluation Branch, Strategic Analysis and Evaluation Group
Ms Robyn Cooper, Executive Director, Early Childhood, Economic Analysis, Growth and Evaluation Branch, Strategic Analysis and Evaluation Group
Ms Emily Jones, Director, Economic Analysis, Growth and Evaluation Branch, Strategic Analysis and Evaluation Group
Mr Murray Kimber, Branch Manager, Income Support for Students Branch, Strategic Analysis and Evaluation Group
Mr Bill Schulz, Acting Director, Partnerships Section, Income Support for Students Branch, Strategic Analysis and Evaluation Group
Mr Indhi Emmanuel, Director, Budget and Business Assurance Section, Income Support for Students Branch, Strategic Analysis and Evaluation Group
Ms Dianne Peacock, Director, Student Allowances and Policy Section, Income Support for Students Branch, Strategic Analysis and Evaluation Group
Ms Julia Forrest, Director, ABSTUDY Policy and Student Projects, Income Support for Students Branch, Strategic Analysis and Evaluation Group
Mr Phil Aungles, Director, Income Support for Students Section, Income Support for Students Branch, Strategic Analysis and Evaluation Group
Ms Anne Byrne, Branch Manager, Skills Analysis and Quality Systems Branch, Strategic Analysis and Evaluation Group
Mr Gregory Clarke, Acting Director, Quality Systems and Skilled Migration Section, Skills Analysis and Quality Systems Branch, Strategic Analysis and Evaluation Group
Dr Paul Balnaves, Branch Manager, Transitions and Attainment Branch, Strategic Analysis and Evaluation Group
Mr Lucio Krbavac, Director, Transitions and Youth Section, Transitions and Attainment Branch, Strategic Analysis and Evaluation Group.

International Education Group

Ms Lisa Paul, Secretary
Dr Wendy Jarvie, Deputy Secretary
Ms Linda Laker, Branch Manager, International Quality Branch, International Education Group
Mr Anthony Fernando, Branch Manager, Market Development Branch, International Education Group

CHAIR (Senator Troeth)—I declare open this meeting of the Senate Standing Committee on Employment, Workplace Relations and Education. The committee has agreed that we will commence today with the Education, Science and Training portfolio, beginning with the Australian Research Council. The committee examined the budget expenditure of this portfolio at its hearings on 31 May and 1 June 2006 and asked supplementary questions in November 2006. Today the committee will consider proposed additional expenditure for the year ending 2007 which the Senate referred to the committee on 8 February 2007.

The committee has resolved that answers to questions on notice are to be lodged with the committee by 30 March 2007 and the committee will report to the Senate on 21 March 2007. I remind officers that they are protected by parliamentary privilege. I also remind officers that in its order of continuing effect the Senate has resolved that there is no area in connection

with the expenditure of public funds where any person has a discretion to withhold details or explanations from the parliament or its committees unless the parliament has expressly provided otherwise.

Officers shall not be asked to give opinions on matters of policy and shall be given an opportunity to refer such questions to superior officers or to the minister. Where an officer declines to answer a question, the grounds for this should be stated so that the committee may consider the matter. The giving of false or misleading evidence to the committee may constitute a contempt of the Senate. Officers called upon for the first time to answer a question should state clearly their name and position. Oral evidence and documents in estimates proceedings are part of the public record. Today's proceedings will be suspended for breaks as indicated on the agenda, and we will finish questions of this portfolio by 11 pm.

I welcome to this public hearing the Minister representing the Minister for Education, Science and Training, Senator George Brandis, and the officers from the Department of Education, Science and Training—beginning with those from the Australian Research Council—as well as observers. Minister, do you wish to make an opening statement?

Senator Brandis—No, thank you.

CHAIR—In that case, we will proceed to questions.

Senator CARR—Can I begin with a question to you, Chair. I would like to know when we are doing cross-portfolio issues. It is custom and practice in this committee, as I understood it, that we do cross-portfolio issues at the beginning of proceedings, and I do not see it on the program. When do you think that we will be able to deal with cross-portfolio issues?

CHAIR—We are to deal with cross-portfolio issues after the Australian Research Council, ANSTO, CSIRO, the Australian Institute of Marine Science, Questacon and the Science Group. As I understand it, that was the order requested by senators and I see no reason to change that.

Senator CARR—I do not think that it was requested by me.

CHAIR—That is the program as it was presented to me. Because there were no other opinions put until very late yesterday that was the order to which I agreed, so we will proceed with questions to the ARC.

[9.07 am]

Australian Research Council

Senator CARR—Thank you. Why it is that the agency does not appear in the additional estimates statements?

Mr Harper—I understand that the reason for that would be that there are no measures in the additional estimates statements affecting this agency.

Senator CARR—I thought that was the reason. Turning to the Discovery grants, can you provide me details of the latest success rates under the various components of the Discovery grant program?

Mr Harper—In the latest round, the success rate—the percentage of applicants that received funding—was 20.4 per cent.

Senator CARR—Can you give me an explanation as to why it has dropped back from 31 per cent to 20.4 per cent? It was 31 per cent in 2005 and it is now 20.4 per cent. Can you provide the committee with an explanation as to why that has happened?

Mr Harper—A full explanation would be very detailed, but I would note that there have been significant increases in the number of applications and increases in the size of individual grants, both of which would have contributed to a reduction in the success rate.

Senator CARR—So it has nothing to do with the quality of the applications?

Mr Harper—The quality of applications at the funding margin is still strong.

Senator CARR—I saw comments recently that another 20 per cent of applications could have been funded if there were sufficient resources. Are you aware of those sorts of concerns being expressed?

Mr Harper—Were there additional resources, there is no doubt that there are additional currently unfunded applications which could well have been funded. I cannot give credence one way or the other to a 20 per cent figure.

Senator CARR—The success rate for Indigenous researchers has moved substantially in the other direction, hasn't it?

Mr Harper—The success rate for Indigenous researchers under the Discovery Indigenous Researchers Development Scheme is based on reasonably low numbers of applications and low numbers of awards, and tends to be susceptible to movements one way or the other. Had one award fewer been made, that could have had a much more significant impact on the success rate in Indigenous researchers development than in Discovery projects.

Senator CARR—So it has gone from 23 per cent to 65 per cent—is that right?

Mr Harper—It was about 23 per cent in 2004 and has been closer to 65 per cent in the last couple of years.

Senator CARR—And that is just a product of the numbers of people; so there has been a drop in the number of applications—is that what you are putting to me?

Mr Harper—There was a drop in the number of applications from 2004, which was 14, of which one was withdrawn.

Senator CARR—So, 13?

Mr Harper—Thirteen, in effect. And in 2006 the number of applications was eight.

Senator CARR—Eight? The success rate of the Discovery projects, the fellowships, has dropped from 19 per cent two years ago to 14 per cent last year. Can you explain to the committee why that has occurred?

Mr Harper—The number of applications for fellowships under the Discovery projects scheme has increased significantly over the last several years. For example, in 2004 the number of applications for Australian Postdoctoral Fellowships was 489; in 2006 it was 679. For ARFs—Australian Research Fellowships, Queen Elizabeth II Fellowships—in 2004 the number of applications was 226; for 2006 it was 292. And for Australian Professorial Fellowships for the same years, 156 to 188.

Senator CARR—So has the size of the grants changed for Discovery projects?

Mr Harper—Yes, and it has changed upwards. I think we have been principally talking between the years 2004 and 2006. The average in 2004, at the time of the ministerial approval, would have been approximately 230,000 and in 2006 would have been approximately 298,000.

Senator CARR—What has caused the growth in the size of these grants?

Mr Harper—I guess it is a complex interplay of, probably, an increase in the amount of funding being sought, the net result of variations in the cost drivers of various components of research and a desire to ensure that the grants which are funded are funded to a meaningful level.

Senator CARR—I understand why you would want to do that. But what are the cost drivers? Have you got an index on the cost drivers?

Mr Harper—Other colleagues may be able to assist, but the cost drivers, bearing in mind that we fund research across the full spectrum, from the humanities and social sciences to the physical sciences, would probably differ from discipline to discipline.

Senator CARR—Do you have different sets of indices, then?

Mr Harper—We do not actually award the grants having regard to adherence to sets of indices.

Senator CARR—But in your own internal research you must have some understanding of what the different rates of increase in costs are across the disciplines.

Mr Harper—We do monitor the variations in amounts sought and the cost drivers. We probably do not go to the point of deriving indices that are cost based.

Senator CARR—So you cannot tell me what the average research cost increases have been across, say, the sciences, social sciences and humanities?

Mr Marsden—Yes, we can. We just do not have that information with us. We will take that on notice and provide that to you.

Senator CARR—I see; thank you. Could you, in providing that information, also provide me with the current rate of indexation that is provided for your overall grants program?

Mr Marsden—Yes, of course.

Senator CARR—What is it at the moment? Which WCI is it?

Mr Marsden—It is the higher education indexation factor. I believe that is a mix of national wage case and CPI movements.

Senator CARR—Isn't there a particular scale? I am surprised the department of finance lets you have a special one.

Mr Marsden—No, it is not a special one. I cannot remember which one it is; I think it is either four or three, but I will take it on notice rather than guess the answer.

Senator CARR—Thank you very much. What percentage rate would that be?

Mr Marsden—About 1.9 per cent.

Senator CARR—What is the average cost of the increases in terms of the increased costs of research? How much is that running at?

Mr Marsden—Sorry, we will have to take that on notice as well.

Senator CARR—Would it be above or would it be less than 1.9?

Mr Marsden—It would be above.

Senator CARR—Do you know how much above?

Mr Marsden—Not accurately off the top of my head. I would like to take that on notice.

Senator CARR—Significantly above?

CHAIR—I think the officer has indicated he will need to take that on notice.

Senator CARR—What about the linkage programs? I see the international awards success rate has gone from 58 per cent two years ago to 27.5 per cent. Could you explain to me why that is?

Mr Harper—Can I just clarify which scheme you were talking about?

Senator CARR—The Linkage International Awards program, which is, as I read it, on page 210 of your annual report.

Mr Harper—I can see the numbers to which you are referring. You can see that there have been increases in the number of proposals received for the 2005 funding round as opposed to the 2004 round but there has been a diminution in the number of awards.

Senator CARR—I see that the number of applications increased but the number of awards decreased.

Mr Harper—Between the 2004 and 2006 funding years, yes.

Senator CARR—Why was that?

Mr Harper—We do not have an answer for that today, but we will take that on notice.

Senator CARR—I see the funding amounts have declined. Would that be any part of the explanation?

Mr Harper—It would clearly be related. With the lower number of awards, it is unsurprising that the amount of funding is lower.

Senator CARR—It has dropped from \$2.1 million to \$815,000. Is that correct?

Mr Harper—Yes. In total for the awards, that is correct.

Senator CARR—Why did that happen?

Mr Harper—I think we have indicated that we will take that on notice.

Senator CARR—I thought you were taking on notice why the number of applications has fallen. I am interested to know why the amount allocated has fallen. I take it that is a policy decision, is it?

Mr Harper—The ARC in effect receives a one-line budget and is jockeying the distribution of that funding among its various funding schemes. As for the steps that would

have led to that particular reduction in funding under this particular scheme, I think we will need to take that on notice.

Senator CARR—Thank you. What you are saying is that the ARC decided to reduce funding for that particular program.

Mr Harper—The ARC makes recommendations to the minister having regard to the amount of funding which is available to the ARC under the ARC Act, and clearly the sum of our funding recommendations cannot exceed the funds available.

Senator CARR—I understand that. That is a pretty important point. I am just trying to be clear as to who made the decision to reduce the funding. Was it the ARC or was it the minister?

Mr Harper—The ARC prepares a strategic plan each year. The strategic plan is submitted to the minister and approved by the minister.

Senator CARR—So it is the minister's decision.

Mr Harper—As I said, it is actually the ARC's strategic plan, as I recall the language of the act, but it is approved by the minister in order for it to be a valid strategic plan. Each individual grant is recommended by the ARC to the minister.

Senator CARR—And the minister can reject the grants, can't she?

Mr Harper—She has that power. She is not obliged to accept the recommendations of the ARC.

Senator CARR—How many did she reject last year?

Mr Harper—I cannot recall any rejections by Minister Bishop last year.

Senator CARR—So those rejections that we read so much about—when I was not doing this work—were by Minister Nelson, were they?

Mr Marsden—That is correct.

Senator CARR—So the current minister has not rejected grants.

Mr Marsden—No.

Mr Harper—To be pedantic: she has rejected numbers of applications, as we can see here, but—

Senator CARR—So she has overturned recommendations?

Mr Harper—No. The minister has rejected applications for funding, on the advice of the ARC. I think the question that you were pursuing was whether or not she had rejected any which the ARC had recommended for funding.

Senator CARR—Yes, and you are saying there was no conflict.

Mr Harper—I cannot recall anything like that.

Senator CARR—In the current minister's time, the minister has not differed with the ARC on any recommendations?

Mr Marsden—The minister has not rejected any recommendations from the ARC during her tenure as minister.

Senator CARR—So the decision to reduce the funding for the Linkage International Awards program was signed off by the minister?

Mr Harper—In effect, yes. The ARC has an amount of funding which has, in effect, doubled since 2001, but it is finite. The ARC advises the minister on how those funds might best be deployed among the ARC's various schemes and, as we have just discussed, in respect of individual proposals the minister signs off largely on the recommendation of the ARC.

Senator CARR—I presume that you have recommended to the minister that other international programs be funded? Is that the basis of the recommendation?

Mr Marsden—I think the answer requires a bit more analysis and I will explain why. The amount of money we have allocated to Linkage International has been reasonably constant across the years—what we have allocated as opposed to what we have actually funded. I will have to analyse the reason for the difference between what has been funded and what has been allocated. It could be for reasons such as that the researchers are coming through discovery projects and sourcing funding from a different route. I will take that on notice and give you a detailed analysis of that.

Senator CARR—I have had a quick look over your report. It seems to me that the international award programs have declined quite substantially—from \$2.1 million in 2004 to \$815,000 in 2006. If you were able to tell me that that money had been allocated to another international program I might be able to follow that. But what I see is that the linkage program, the fellowship program—the other international program—has only increased relatively slightly by comparison. So I take it the money has been reallocated somewhere else and that the ARC has made a decision to switch resources away from international research collaborations of this type and to take up something else. Would that be a fair conclusion?

Mr Marsden—It would be, but it may not be driven by us artificially moving things; it may be driven by the number and nature of applications—and that is why I want to provide that analysis on notice. As Mr Harper said, we have basically split our programs, through the strategic plan, into discovery and linkage and we have moved within those splits based on what applications are coming forward.

Senator CARR—I understand that and I look forward to your answer. I notice that the international fellowship success rate has dropped from 48 per cent to 25 per cent and the linkage projects and fellowship success rate has dropped from 51 per cent to 36 per cent. These are very significant drops. I take it the ARC has not been able to demonstrate that international awards of this type should be a lower priority—because that is what appears to be the case.

Mr Harper—I think the recommendations of the ARC are set against the context of the budget that the ARC has at its disposal and the context of a variety of other schemes. The budget, as I indicated earlier, has increased over time. Notwithstanding that, as we are seeing, the number of some awards and the amount of dollars applied to some awards may have dropped, while in other schemes it will have increased. There is an amount of context there, and that is what Mr Marsden and I are saying we would prefer to take on notice.

Senator CARR—It would appear that the indexation rate is far too low by comparison with the cost drivers for research, given that we have people who are actually on the various panels suggesting that the number of people getting grants could be up to 20 per cent higher if resources were available, on any fair assessment of the quality. That would equally be a reasonable conclusion to draw, would it not, given this budgetary restraint?

Prof. Papadakis—I think people on the panel differ in their views as to how far below where the funds run out quality begins to diminish. So it is conceivable that someone would say that we could go down another 20 per cent and that others would say this is all we ought to be funding because we are only meant to be funding the highest quality research. There is variability there.

Senator CARR—Would the view that you have sufficient funds to meet the demand for quality assessments be widely held on these panels?

Prof. Papadakis—I was only referring to—

Senator CARR—Hypothetically?

Prof. Papadakis—no—to what people on the panels have said, because we monitor what is going on in the panels.

Senator CARR—Let us have a look at the Discovery grants, because you tell me that that is where the growth has been. When I look through the Discovery grant program I see that the fellowships project has dropped back from 31 per cent to 24 per cent and that Indigenous researchers has increased again. Discovery Projects has dropped from 19 per cent to 14 per cent. Let us deal with that issue. Why has the general success rate fallen in the Discovery grants, with the exception of Indigenous researchers?

Mr Harper—As I think I indicated earlier, you can see that there are significant increases in the number of proposals received under Discovery Projects (Projects and Fellowships). Also, when we look at the fellowships, we see there have been significant increases in the number of fellowships awarded and, if we were to look at the average funding per grant, we would see that would have risen as well.

Senator CARR—By how much?

Mr Harper—I am not entirely sure, looking at the numbers in front of me, but it is at least \$26,000 per total grant.

Senator CARR—What is the average?

Mr Harper—For 2006, the average grant was \$298,350.

Senator CARR—What is the 2004 figure? What is the figure you have taken \$26,000 from?

Mr Harper—Perhaps if I take the figure at the time that it was forwarded to the minister. Part of the issue that I have here is whether, at the time of the minister's decision, some were approved but as reserve proposals. Some of those may eventually have been funded. That means that, eventually, the figures for the year could have differed from those at the time of the minister's approval. But, for the bulk of the grants that were approved at the time of the minister's original decision, the figure for 2004, which I have in front of me, is \$229,824.

Senator CARR—What is a reserve proposal?

Mr Harper—At the time of approving proposals, and in the jockeying for the ARC's budget, the ARC may recommend and the minister may approve that certain proposals be funded if funds can be made available within the ARC's budget.

Senator CARR—How does that happen? You do not have hollow logs, do you?

Mr Marsden—No, that occurs in a number of ways. For example, not all research projects approved by the minister are always taken up by researchers. That may be because they cannot get APAs, or whatever the reason is. If it is a linkage, it could be that the view of interested partners has changed and that sort of thing. Also, occasionally a project will start and, because of sickness or some adverse reason—even, in some cases, bushfires destroying forestry studies—the project may be terminated. Occasionally, they recommence the next year, but sometimes they are terminated. Therefore, funds are freed up. Those funds are then used to fund projects on the reserve list.

Senator CARR—How many projects were terminated last year?

Mr Marsden—I will have to take that on notice. I do not have that information.

Senator CARR—For instance, is it a reasonably consistent number across the last three years?

Mr Marsden—I would say a reasonably consistent low number, but I would like to provide the precise number to the committee.

Senator CARR—Could you indicate to us the reasons for termination?

Mr Marsden—Yes, we can.

Senator CARR—What is the cost-driver figure for Discovery grants? Do you have a figure for that? What is the average increase in costs that applicants are claiming?

Mr Marsden—We need, at least, to take that on notice. I am not sure how easily we will be able to deal with that question. As I indicated, it would vary considerably across disciplines.

Senator CARR—You must have some form of analysis across disciplines. If you take the four—the physical sciences, the social sciences, the humanities and the arts.

Mr Marsden—We can certainly provide that information and break it up by discipline, if that is what you are asking.

Senator CARR—Thank you. What progress is being made on the development of the ARC and the NHMRC research code of conduct?

Mr Harper—There is a very advanced draft of that document, which is their code of research practice, which at present is between the ARC and NHMRC.

Senator CARR—Did you say it is very advanced? It is ready for release, is it?

Mr Marsden—It is not literally ready for release but I think relatively imminent. It has been through an extensive process of drafting and consultation with people and comments being sought and received.

Senator CARR—Would you mind outlining to me what this extensive consultation process involved?

Prof. Papadakis—I believe that over a period of time various drafts were released and there were many submissions.

Senator CARR—They were released publicly, were they?

Prof. Papadakis—Yes, and there were numerous submissions commenting on those drafts, so it was not just one draft that was released. I believe there was a second draft. I do not know the exact number of submissions but it was significant. The NHMRC and ARC and maybe the AVCC were also involved.

Senator CARR—When do you think we will get to see the final code? Will there be a final exposure draft? How do you intend to proceed from here?

Prof. Papadakis—I believe, as Mr Harper said, that there is a very advanced draft which just requires final endorsement, subject to any finetuning by the parties that will issue the draft—namely, the ARC, NHMRC and, I believe, the AVCC.

Senator CARR—Do you intend to put this final draft out for public discussion or do we now move straight to the finalised product?

Prof. Papadakis—I believe it is at the stage of moving to the finalised product.

Senator CARR—Do you have a date for that?

Prof. Papadakis—I do not have a date.

Mr Harper—I do not think there is a date. It is hard to predict, but it will be soon—about a month, I would think.

Senator CARR—I turn now to the RQF panel structure. The ARC has made some comments in the past about these matters. I wonder whether you could provide the committee with your advice. What is your position at the moment as to the proposed panel structure of the RQF?

Mr Harper—In the absence of our CEO, who has been more involved with that than those of us at the table, it is difficult for us to provide an answer on that. I note that the carriage of the RQF process is with DEST.

Senator CARR—I understand that—and, obviously, on behalf of the committee, send my best regards to Professor Hoj, given his accident last night, as you have advised me. Are you saying to me that there is no-one else here from the ARC who can deal with questions relating to the RQF, the Research Quality Framework, given the numbers of papers and positions you have released on this question?

Senator Brandis—With respect, you know the circumstances in which the chief executive is not here. He is plainly the best officer to answer those questions. In his absence, if I may say so, through you, Chair, it seems a reasonable and helpful thing for the officers at the table to take the questions on notice so that the answers can be provided by the person best placed to answer the question.

Senator CARR—The question, though, is: is there only one person in the ARC who has been dealing with this matter?

Senator Brandis—I do not think that is the point. What the officers are obliged to provide to the Senate is the best answers they can, and, if in their professional judgement your questions are best answered by reference to an officer who cannot, for reasons you will understand, be available and therefore you will get a better and full answer by the question being taken on notice, I think not only is that appropriate but it is a proper courtesy to you.

Senator CARR—I appreciate the point you make. However, the question of what would be the best answers to questions I have yet to ask is, I think, somewhat presumptuous.

Senator Brandis—You have foreshadowed where you are going.

Senator CARR—I have asked one question in relation to the panel structure. I now ask: is it the case that only one officer in the ARC has been dealing with the RQF?

CHAIR—I think the officers have indicated that Professor Hoj is the best person to answer that. He is not here.

Senator CARR—The best person is a separate question. I would like to know: has there only been one officer working on this issue? That is a question that surely the officers at the table can answer.

Mr Marsden—The RQF covers quite a large area, as you can appreciate, so yes, there has been more than one officer involved in the RQF. But, in relation to the question you ask, Professor Hoj is the best placed for that particular question.

Senator CARR—On the question of the structure of the panels?

Mr Marsden—Yes, he is best placed on it. We are only a small organisation, as you can appreciate.

Senator CARR—I do.

Mr Marsden—So we tend to specialise just because of the nature of our size.

Senator CARR—I can understand that. Can you tell me this: has the ARC expressed a view with regard to the number of panels that is being proposed? That is not technical question; that is a straight question seeking factual information.

Mr Harper—The ARC has been involved in discussions concerning the Research Quality Framework and, in the course of those discussions, may or may not have expressed views.

Senator CARR—The point is that you do not know. Is that what you are telling me?

Mr Harper—I do not know the totality of the views expressed by the ARC on this matter, no.

Senator CARR—I appreciate it was a bit hard to predict that the CEO would not be available, and it was certainly beyond your control—although I do note that, in the case of CSIRO, the CEO indicated to me that he was not going to be here. Are there any other CEOs who have indicated to the committee that they will not be here?

CHAIR—Not so far as I know. They are the only two: one by circumstance and one by other plans.

Senator CARR—Has the AIMS CEO indicated he is coming?

CHAIR—We have not been advised that he is not.

Senator CARR—Can I turn to the Productivity Commission's draft paper on science and innovation. Mr Harper, are you able to help me with that?

Mr Harper—I will try to help you.

Senator CARR—Have you responded to the Productivity Commission's draft paper on public support for science and innovation?

Mr Harper—We did respond to the Productivity Commission's draft report, yes.

Senator CARR—I take it that that is publicly available?

Mr Harper—I understand so. It is on our website.

Senator CARR—In fact, not only is it available but I have a copy of it in my folder, if I cared to look. Can I go to that response, because you obviously made a number of comments. Can I deal with the question of access to papers from ARC funded research, which was a point you make on page 4, saying that it should be encouraged but not mandated. Can you explain to the committee why that should be the case?

Prof. Papadakis—We feel that at this stage the most productive way of engaging researchers to disseminate their work is to encourage them and also to build into the reporting of research outputs—that is, in the final reporting of all of the projects that we have—that people need to place their material in an appropriate subject and/or institutional repository wherever such a repository is available to researchers. The whole discussion about repositories is one that is ongoing. Indeed, we have looked at practices in other countries, and that suggests there is some variation in practices. Different councils in the United Kingdom, for example, impose different requirements on their grant recipients, with some, to different degrees, compelling them to place their material in a certain kind of repository. So the discussion about repositories is still at an early stage.

At this stage we need to get researchers to think about it and begin doing it. There is not necessarily an obvious and ideal facility in which people should deposit their information. For example, should there be a central repository where everything goes; should there be discipline based repositories; should there be nationally based ones; should there be international discipline based ones; and the like? Those are the reasons the ARC do not feel in a position to mandate at this stage. We feel that clear signals of encouragement will prompt the stakeholders to think carefully about implementation and funding. We think there should be an encouragement of publishers as well to consider greater public accessibility to the work that they publish. We are also conscious of what drives researchers; in other words, they place their material in locations where people are most likely to read the material—and therefore access it and disseminate it—and where it will make the highest impact. Those are the issues that are still being considered and those are some of the reasons.

Senator CARR—I take it you drafted this response, did you?

Prof. Papadakis—It was a document that was worked upon by several people in the ARC.

Senator CARR—Did you take the lead role in drafting it?

Prof. Papadakis—I played a role, yes.

Senator CARR—Do you take a role in the drafting of many of the papers that the ARC presents of this type?

Prof. Papadakis—To the Productivity Commission?

Senator CARR—Yes, to the Productivity Commission—

Prof. Papadakis—In this part of the submission to the Productivity Commission, not in the remainder of the documents. The CEO certainly played a central role in that.

Senator CARR—Did you participate in the drafting of the papers for the RQF?

Prof. Papadakis—For the Productivity Commission report?

Senator CARR—No, for the RQF more generally.

Prof. Papadakis—No. The CEO played the central role.

Senator CARR—Is he the only one who drafted those papers?

Prof. Papadakis—No. There was discussion among colleagues about—

Senator CARR—I just wondered if the CEO, as a rule, drafted his own papers.

Prof. Papadakis—The CEO has a very hands-on and effective role in the organisation and certainly his imprint would be on them.

Senator CARR—So none of the officers who helped draft the papers are available?

Prof. Papadakis—Which papers?

Senator CARR—With regard to the RQF.

Prof. Papadakis—I am not sure which papers in particular you are referring to.

Senator CARR—The responses to the government's positions. It struck me that, given your role in the Productivity Commission submission, you might have had some role in the *ARC support paper: a proposed panel structure for the RQF*, dated August 2005.

Prof. Papadakis—That was primarily the CEO and our research evaluation—

Mr Marsden—And the director of our research evaluation section. Those were the two officers.

Senator CARR—Is she here?

Mr Marsden—No, she is not.

Senator CARR—Who helped with the drafting of the paper on the Research Quality Framework response to the preferred model, dated October 2005?

Mr Marsden—The same two officers.

Senator CARR—Only two officers?

Mr Marsden—Yes.

Senator CARR—And she is not here?

Mr Marsden—No.

Senator CARR—Is it the case that the paper assessing the research impact, dated 28 June, was drafted by the same two officers?

Prof. Papadakis—Which year?

Senator CARR—2005. It was actually July 2005 by the time it was published.

Mr Marsden—Yes.

Senator CARR—I see. I will return to the submission to the Productivity Commission. Can you tell me how many other countries mandate open access to research papers?

Prof. Papadakis—I do not think one can look at it in terms of countries but rather funding agencies and different schemes. I do not recall exactly which ones there were, but they are definitely in the tiny minority at this stage.

Senator CARR—Can you take on notice which ones that you are aware—

Prof. Papadakis—Yes. The mandating may also happen in a particular way. In other words, a funding agency may mandate that all publications arising from a project should be placed in that agency's repository. It does not necessarily mean that they mandate that they be placed somewhere where you and I can access them. So there are different levels of what is meant by 'mandate'.

Senator CARR—Given our present arrangements, how feasible is it for the government, through the ARC or any other structure in Australia, to take up the suggestion of mandating research papers go to some sort of repository?

Prof. Papadakis—I believe that is something that is still to be tested. Also, it would depend on what one meant by 'mandate'; in other words, what the level of mandate was—for example, if one insisted that every university that received an ARC grant had a repository and that every output that was funded through the government had to be placed in that repository. There are obviously levels at which such mandating may well be practicable in the short term. It is a gradation depending on what one means by 'mandate' and at what level. There are many things that I am sure are feasible and I imagine that they are being tested.

Senator CARR—You support the Productivity Commission in calling for the means for more modest collaboration—that is, more collaboration in CRC program offers between business and researchers—and you suggest an expanded Linkage Projects program would be the best way to go on that matter. Can you explain to the committee why it is that you put that position, apart from the obvious reason that it would give more funds to the ARC?

Prof. Papadakis—I did not draft that part of the report. I will ask a colleague if they would be able to comment on that.

Senator CARR—Thank you.

Dr Mackinnon—I look after the Linkage Projects scheme. The rationale was that there is a need to have linkage between the academic researchers within universities and the corporate sector or the partner organisations around Australia. There appears to be very strong demand for this type of research scheme within Australia. The demand is strong not only from the university based researchers but also from the partner organisations.

Senator CARR—So you are saying that the demand is greater than the funds available at the moment?

Dr Mackinnon—There is certainly a strong commitment by partner organisations to participate in this particular scheme.

Senator CARR—Do you have any measurement of that demand?

Dr Mackinnon—Not explicitly that I can provide to you at the moment, but we could certainly take that on notice.

Senator CARR—With regard to the RQF, which is discussed in this paper, you say:

The incentives delivered by the Framework, and its potential to drive improvements in quality and impact of Australian research, will depend crucially on the nature of the link between funding and RQF ratings.

You go on to talk about:

... the comparability across disciplines of measures of quality and impact.

Could you explain to the committee what you mean by that.

Dr Mackinnon—Could you repeat the last sentence you quoted?

Senator CARR—You mentioned the issue of ‘the comparability across disciplines of measures of quality and impact’. If you look at page 12 of your submission, there is a whole section on the RQF.

Dr Mackinnon—Yes, I am there. I am looking for the sentence.

Senator CARR—It is in the second last paragraph on page 12. It is:

The incentives delivered by the Framework, and its potential to drive improvements in quality and impact of Australian research, will depend crucially on the nature of the link between funding and RQF ratings. The latter will in turn be influenced by such details as the configuration of research groupings—
—and so on. You then go on to talk about the cross-discipline measures of quality and impact.

Mr Harper—I think we are saying there that all of those factors, which, as I understand it, are not yet finalised, will have an impact on the incentives delivered by the framework.

Senator CARR—Thank you, I can read that. I am just wondering if you could explain to me why the ARC believes that to be the case. Who drafted that section?

Mr Harper—It was not me, and I think it is much the same answer as we have given you several times before.

Senator CARR—Yes. The submission also says:

The ARC is, nevertheless, concerned that the operation of the RQF, and in particular the demands it will place on assessment capability in 2008, may adversely affect the availability of assessors and hence the quality of the assessments which the ARC will be able to undertake itself in that year.

Could you explain to me what you mean by that.

Mr Harper—The ARC has been receiving an increasing number of applications, as we noted earlier today. Those applications are peer reviewed and the load on the peer reviewers, the assessing community, has been increasing over time. Clearly the RQF itself also has an

assessing load. So what we are doing there is raising the concern that having both assessing loads in 2008 is something which needs to be managed carefully.

Senator CARR—I appreciate that. You go on to say:

It would be unfortunate if an attempt to measure and ultimately improve the quality and impact of Australian research were to have the effect of limiting the ability of funding agencies such as the ARC to guarantee the quality of their own processes ...

That is a pretty strong statement for a program that the government has just provided \$87 million for. How are you going to manage the concern that you have raised?

Mr Harper—We will be engaged with DEST and other stakeholders to try to ensure that we conduct as good a peer review process as we can under those circumstances. It is hard to be specific in response to your question.

Senator CARR—Your concern remains, though?

Mr Harper—Yes.

Senator CARR—There is nothing that you have seen between December 2006 and now to satisfy you that your concerns were unfounded?

Mr Harper—The assessing load will, prima facie, increase. The assessing community is under a reasonable amount of pressure anyway, and that pressure is increasing with increasing numbers of applications to the ARC. We continue to be concerned to ensure that at least our processes are run as well as we can, and obviously the people with whom we are speaking on the RQF will be concerned to ensure that their process runs as well as it can.

Senator CARR—How much extra money have you been allocated to cope with the RQF?

Mr Marsden—Nothing.

Senator CARR—What will the additional cost be to the ARC to implement the RQF?

Mr Marsden—Can you expand on that question? DEST is implementing the RQF. We are indicating in what you have just read back to us that we think there are going to be assessor issues. We are not yet sure of the extent of those other than that we have communicated those concerns to the department itself. We will engage with the department as often as we can to manage, hopefully, that concern so it does not become a real issue.

Senator CARR—I am surprised that you have not been allocated any money out of the \$87 million for implementation.

Mr Marsden—There has been no allocation to the ARC.

Senator CARR—Thank you. I will put the rest of my questions on notice.

CHAIR—Thank you. We will now call the representatives from the Australian Nuclear Science and Technology Organisation.

[10.04 am]

Australian Nuclear Science and Technology Organisation

CHAIR—Good morning, gentlemen. We will start with questions from Senator Carr.

Senator CARR—Dr Smith, welcome. It is wonderful to see you again. I wonder whether you can assist the committee with a little problem that I have come across. I am sure that there is a simple explanation for it. It has been reported to me that there was an explosion at Lucas Heights. Is that right?

Dr Smith—We in fact had an incident quite some time ago now, in the molybdenum-99 processing plant in which a gas-trap pipe fractured.

Senator CARR—Right. So this was in the isotope production area, was it?

Dr Smith—Yes.

Senator CARR—When did that happen?

Dr Smith—Some time ago—I think about June last year.

Senator CARR—Right. Forgive me; I have been out of circulation—was there a press statement put out by you?

Dr Smith—Yes, it was quite well covered in the press.

Senator FIFIELD—And well covered in the last Senate estimates.

Senator CARR—Was it? That's good.

Senator FIFIELD—The workshop was nowhere near the nuclear reactor, from memory.

Senator CARR—I see. What was the nature of the explosion?

Dr Smith—It was a gas overpressure in a gas trap, and that caused the gas trap to rupture.

Senator CARR—What was the cost of the damage?

Dr Smith—I think that the cost of the damage was in the order of \$1½ million.

Senator CARR—I take it there were no injuries to staff?

Dr Smith—No. Initially, there was some small contamination of the person who was operating the hot cell at the time, but they were decontaminated, and there were no injuries to staff.

Senator CARR—Thank you. Have you been producing isotopes since then?

Dr Smith—We have not been producing molybdenum-99, because this accident coincided with the commissioning of the new OPAL reactor, but we are also commissioning a brand new process for making molybdenum-99 which will be safer and more reliable. So at that stage I took the decision that it was better to proceed—to get the new process installed promptly rather than attempt to repair the old process.

Senator CARR—You would have covered this at the last estimates too, wouldn't you—the fact that you are not producing these medical isotopes?

Dr Smith—We are continuing to produce medical isotopes in the cyclotron, and other medical isotopes. We are not producing molybdenum-99; we are currently importing molybdenum-99.

Senator CARR—I see. What sorts of quantities are we talking about?

Dr Smith—I would have to take on notice the exact quantities, but it is the normal demand that we have for Australia.

Senator CARR—How many doses is that? What is the normal demand for molybdenum-99?

Dr Smith—It is generators. I think we are probably shipping around 100 to 150 generators a week.

Senator CARR—So is that 150 patients who would be affected by that?

Dr Smith—No, each generator has multiple patients.

Senator CARR—How many patients do you think are affected by this program?

Dr Smith—We believe that the generators produce somewhere in the order of 400,000 patient doses a year.

Senator CARR—That is the total? So 400,000 doses are now being imported.

Dr Smith—We are importing the molybdenum-99; we are still manufacturing the generators in Australia.

Senator CARR—Perhaps we should go back a bit, because I am obviously having trouble following this. Can you explain in some detail how the medical isotope production has been affected?

Dr Smith—The effect on us has been that we have moved from manufacturing molybdenum-99 in Australia to importing molybdenum-99 into Australia. The effect of that on the community has been that we are suffering the problems that I predicted if we tried to import molybdenum-99—that is, we are having, on average, every two or three weeks, a failure to supply from the two suppliers in the world that we purchase from. We are working very hard, and the staff are working very hard, to try to minimise the disruption to nuclear medicine in Australia, but when material is off-loaded from planes in foreign airports we cannot do anything about that and at times have had delays of one or two days before nuclear medicine procedures could continue.

Senator CARR—So no-one has gone without for longer than two or three days?

Dr Smith—No. That is correct.

Senator CARR—But there is a delay of two to three days—how often?

Dr Smith—It is random. The two sources that we can buy molybdenum-99 from are South Africa and Canada. Both require long flights, and there is a random chance of a delay when it is off-loaded from planes and when there are faults in reactors in those countries.

Senator CARR—And the incidence of that is two or three times a month?

Dr Smith—Yes.

Senator CARR—Is the material reliable? It is a good quality material?

Dr Smith—The material is approved by the TGA for use, yes.

Senator CARR—Have there been any additional costs associated with importing this material?

Dr Smith—Yes, there is an additional cost to ANSTO of importing.

Senator CARR—What is that cost?

Dr Smith—Of the order of \$100,000 a week.

Senator CARR—A week?

Dr Smith—Yes.

Senator CARR—What have been the aggregate costs or the additional costs? This happened a year and a half ago.

Dr Smith—This happened about seven months ago, so we are talking about just over \$2½ million.

Senator CARR—Can you just confirm for me that the HIFAR reactor is now closed—

Dr Smith—That is correct.

Senator CARR—and the OPAL reactor has not been fully commissioned.

Dr Smith—It is still in the hot commissioning phase; that is correct.

Senator CARR—Reactor produced medical isotopes are now being imported.

Dr Smith—At that moment that is correct.

Senator CARR—What other isotopes are being imported?

Dr Smith—Yttrium-90 is an isotope we will be importing, and samarium.

Senator CARR—Just those two?

Dr Smith—Those are the two reactor produced isotopes.

Senator CARR—What is the additional cost of importing those?

Dr Smith—I should add that now the HIFAR is closed we are also importing iodine-131. I would have to take on notice the exact cost of that transition because obviously HIFAR has only been shut for two weeks and I have not seen the figures of how that is running.

Senator CARR—How long will it be before we have the OPAL reactor up and running?

Dr Smith—It has run at full power for about a month at the moment but we are hoping that we will be fully operational at around April. In the hot commissioning phase you are dealing with the unknown. We do not know what issues will evolve as we go through hot commissioning.

Senator CARR—So it is not guaranteed that you will be in full operational stage by April?

Dr Smith—That is correct.

Senator CARR—Will you give me a cost on the three isotopes that are being imported?

Dr Smith—Yes.

Senator CARR—How many doses will be required on a weekly basis?

Dr Smith—The import quantity is usually not in doses. We import by activity, but I will ask to have that translated for you in the answer.

Senator CARR—You must have that in your file now. How do you describe it?

Dr Smith—Typically, radiopharmaceuticals are sold by the quantity of activity that is in the process. So if you are selling molybdenum-99—that has a half-life of 3½ days—it will effectively halve in value every 3½ days, because you are selling the activity, not the compound.

Senator CARR—How many people are going to be affected during this transition period?

Dr Smith—Hopefully nobody will be affected as long as we are able to import in a reliable way.

Senator CARR—Have you got any evidence to suggest that the importation is not reliable?

Dr Smith—For molybdenum-99 we do have a test for six months now that shows that it is not reliable, but the molybdenum-99 market is a very difficult market worldwide now with an undersupply, and so it is a difficult market for us to obtain material. I would expect that for other isotopes it may be easier for us to obtain overseas supply.

Senator CARR—So how many people do you think are likely to be affected during this transition period?

Dr Smith—I am unable to say now many people will be affected. Our aim is that nobody will be affected.

Dr Cameron—Some of that will be done by working with the nuclear medicine physicians to reschedule treatments for those who do not need them in this period. That is a process we also go through when we have an import process.

Senator CARR—Have you had experience in the past of this type of situation?

Dr Smith—There have been times when we have had major shutdowns in HIFAR and we have had to undertake a similar program.

Senator CARR—What was your experience during those shutdowns?

Dr Cameron—Our experience was generally that, where they were of the nature of four to six weeks, the physicians could cope with that process as long as they got a supply of molybdenum-99. For a lot of the other procedures they could rearrange patients and move them and change dates et cetera. If it went longer than that then that would cause them problems.

Senator CARR—We are talking about four to six weeks, are we?

Dr Cameron—If we are talking about the time now between the closure of HIFAR and where OPAL will be operating, that is the sort of period we are talking about for these other isotopes.

Senator CARR—Four to six weeks?

Dr Cameron—We are talking about the end of March, April, from where we are. Possibly up to 10 weeks could be the process—

Senator CARR—Up to 10 weeks. So what happens at the end of this six-week period, which is the extent of your experience so far, I trust?

Dr Smith—With the arrangements that are in place, I believe we will have the isotopes imported and ARI continuing to service its nuclear medicine patients.

Senator CARR—You can store the isotopes, can you, given the half-life?

Dr Smith—No.

Senator CARR—So that is not an option.

Dr Smith—We have to import them, and we will have to have them imported by air transport all of the time. We have, in this venue, given our opinion several times that one of the reasons for needing to have the reactor in Australia is to stop the potential problems that we are having right now. We are moving to a new reactor which will be much more reliable and will operate for greater times. The transition period is, I guess, a necessary evil as we move to that point.

Senator CARR—That goes to my point: given that you know the consequences of a shutdown, why is it that we now have a situation where we cannot produce these isotopes? Why have we got both reactors shut down?

Dr Smith—The HIFAR reactor licence terminated on 31 December, so we had to approach ARPANSA for extensions. The indications were we could have some extension, but an extended extension of the HIFAR licence would require work to be done which would require HIFAR to be shut down. We also had the issue of the ability to purchase fuel for HIFAR, in that it was the last reactor of its type in the world. All of these events came together. I guess that we also could not predict what is happening in OPAL, where the hot commissioning has slowed rather than gone at the pace that we hoped.

Senator CARR—So you are going to put it to me that this is not a question of bad management?

Dr Smith—I had to make a management call on what was the best way to do it, and my management call was that concentrating our efforts on getting the OPAL reactor operating in a fully functional way as quickly as possible was the best use of our staff and facilities.

Senator CARR—When did the management of ANSTO know that the situation was going to arise?

Dr Smith—We get daily briefings, effectively, on the hot commissioning of OPAL which, as I said, is an unpredictable process.

Senator CARR—It is just that I recall—and you will correct me if I am wrong—that we discussed with you, certainly with your predecessor, the fact that you were going to run out of fuel at a certain point. That was predictable. Even a person with my view of the world from this side of the table was able to predict that, so I presume experts like you would have known.

Dr Smith—And we did purchase more fuel.

Senator CARR—At what point did you know that you were going to have both reactors shut down?

Dr Smith—We knew at the beginning of this year.

Senator CARR—That was the first time it occurred to you?

Dr Smith—That was the first time that the progress in the OPAL hot commissioning was not meeting the schedule we had hoped for.

Senator CARR—So it came as a complete surprise to you, did it? On 1 January it came as a complete surprise to you that you were not going to have a reactor to produce these isotopes?

Dr Cameron—No. I think the issue for us was that we had a cold commissioning process that went in the first half of the year. That led up to the licence that we received on 14 July to begin hot commissioning and then to move into operation. That gave us six months of overlap with the two reactors. That was always the plan for the time that it would take. We had the option of running HIFAR for a month or so longer; we took that option. That gave us about seven months for the process. Our indications, even through July, August, September, were that that would be okay. It was only in the last few months that the hot commissioning process slowed enough to make us realise that there would be a time lag between closing one and the other being fully operational.

Senator CARR—Thank you, Dr Cameron. So I take it from what you have just said to me that some time around September you knew that there was a lag time.

Dr Cameron—We knew that the process of hot commissioning would go slower, but our experience has been in the cold commissioning period that we did get some periods of slowness and then we accelerated again. Unfortunately, we were not able to pick up that time that was lost, so as it got towards the end of the year we realised—

Senator CARR—So in September you thought you could?

Dr Cameron—We were hopeful that we would still pick up the time.

Senator CARR—And by November you realised that you couldn't?

Dr Cameron—Certainly towards the end of the year that was clear.

Senator CARR—Was that in late December, at the end of the year? I am just trying to work out how much time you had to fix this problem.

Dr Cameron—The issue of time was that when we got beyond November there was no time to do anything more with HIFAR because it takes us 18 months to purchase new fuel for HIFAR.

Senator CARR—So it was not a question of licence; it was a question of fuel supply.

Dr Cameron—The two things were linked. We would have had to go back for another licence to continue operating but we would have had to purchase new fuel. The purchase of new fuel was not going to be possible in the time. Even if we could have kept HIFAR going, it

would have been only for a few more weeks. We would have had to go back and get relicensing, and the likelihood is that we might have needed to shut down.

Senator CARR—But a few more weeks would surely give you a better situation than what you have got now.

Dr Smith—I think you have to understand we also have limited resources on this site, and the resources that are committed to working on the HIFAR are effectively taken away from the OPAL process. The issue of continuing to run HIFAR for extra time is fraught with the difficulty that licensed operators are becoming fewer as people move on or retire, so there are real issues about the drain on the organisation of trying to keep that reactor going.

Senator CARR—So you have got a skills shortage; is that what you are saying?

Dr Cameron—No, the issue for us was that we took the decision, really in respect of the best use of our resources, not to try to fully man two complete reactors, knowing that one would shut down and suddenly all those people would not have jobs. We took the option to man two but to have a sharing between the two reactors as the most economical and sensible way to use our resources. I think, as Dr Smith said, at some point we decided it was better to concentrate all the effort on getting OPAL operating, as that is the future. It will provide us with all the capability that we need and we felt that that is where we should put our effort.

Senator CARR—Dr Cameron, while I do appreciate your view about the future, if you were sitting in a hospital waiting for treatment or you were sick your sense of the future might be somewhat more limited. You would actually want these isotopes, wouldn't you? You would not want to hear any excuses that they are stuck in a plane in Toronto.

Dr Cameron—We appreciate your support for us as to the need to have a new reactor operating as soon as possible.

Senator CARR—I have never argued any differently. If you check the record, you will find I have always argued in support of medical research, including, in fact, nuclear research generally, particularly through this reactor. I have argued the toss about the location. I have argued the toss about whether or not you have been able to manage the commissioning process and the construction process. I think some of the design features may be left open to question. I thought putting it on an earthquake fault line was an interesting exercise, and now we have a situation where we have explosions and various other matters. I do think there are legitimate questions to be raised here. What I do challenge is how you managed to get a gap of this size, given your level of expertise.

Dr Smith—I have to say again that, while the gap in production is what it is, the experience over the last seven months is that the longest delay for a patient is three days, so the gap in production cannot be translated to the gap in treatment. It is just a potential delay of waiting for the next plane, effectively. It is one to three days, and that is the absolute experience over the last seven months.

Senator CARR—With regard to the leak at the OPAL reactor, how long do you expect the repairs to take?

Dr Smith—There is not a leak. In fact, there is seepage of some light water coolant into the reactor, so it not something exiting the reactor. It is the light water coolant seeping at a

very slow rate into the heavy water. There are absolutely no implications for nuclear safety at all. There is a small implication for the performance of the reactor, but we intend to go back to full power within the next couple of days with the reactor without making repairs. This is clearly a warranty issue for any repairs that will be made. The constructors are currently conducting a full survey of the options for those repairs. I believe that they are considering three options. When they have fully developed those, we will see what those options are and know what the implications are for the schedule and when and if we need to schedule a shutdown for repairs.

Senator CARR—What I have called a leak and what you have called seepage—

Dr Smith—It is about one cup a day in many litres of water.

Senator CARR—As a nuclear physicist, your idea of a smaller risk might be a little bit different from mine. A cup a day of this stuff might seem small to you. In terms of the radioactive elements, has there been a slowdown in repairs as a result of this leak or seepage? None whatsoever?

Dr Smith—There was a slowdown in the commissioning as we tried to identify what the problem was. Having identified the problem, the constructors, who have the reactor still under warranty, have now gone away to work out what their response will be. The considered opinion of all of the people involved is that the reactor is ready to go back to full power now.

Senator CARR—And that is the view of ARPANSA as well?

Dr Smith—That is correct. ARPANSA have made a public statement saying that this is not a nuclear safety issue.

Senator CARR—In terms of the range of isotopes that can be produced at the OPAL reactor, has there been a decision made about whether the full range that can be produced will actually be produced?

Dr Smith—The isotopes that will be produced in the reactor will be controlled by the nuclear medicine community and the physicians that prescribe nuclear medicine treatments. There are large numbers of isotopes which could be made, but the question is whether there is any demand for those. We need to work carefully with all sorts of medical specialties and nuclear medicine practitioners to ensure that the critical materials are produced in Australia, and we will do that.

Senator CARR—So you are determining your production on demand. Is that a commercial decision?

Dr Smith—No, it is not an entirely commercial decision, because we accept that we have a public good element and we will make material which otherwise would not be available in Australia. But it becomes a more significant question if we have a single user of a product in Australia and it is not considered by the general profession to be the most effective product at the moment.

Senator CARR—Can you give me a list of the isotopes that you will not be producing at OPAL even though you have the capacity to do so and your estimates of the reasons for that? I do not mean demand or the number of persons that are likely to be affected—

Dr Smith—So you mean isotopes with medical applications?

Senator CARR—Yes, those with medical applications. I take it that there are other isotopes that have non-medical applications in the mining and construction industries and the like. Are you able to give me a list of the isotopes that might be used for engineering purposes and the number of people who might have to import them because they are not being produced here?

Dr Smith—Yes, we can do that.

Senator CARR—It is my recollection that with regard to mining there has been quite extensive use of the reactor for sample testing. Is that right?

Dr Smith—That is for neutron activation analysis. It is not using isotopes directly. It is a different case for importing industrial isotopes, because typically they have long half-lives and there is a significant trade in them, with people selling industrial isotopes around the world. In fact, like many things, there are some very aggressively low-cost suppliers in the world at the moment.

Senator CARR—What is the demand for industrial isotopes at the moment? How is that running?

Dr Smith—In Australia, ANSTO's business in industrial isotopes is between \$1 million and \$2 million in turnover a year.

Senator CARR—I have seen estimates of 40,000 occasions on which the nuclear products you are producing are used in the mining industry per year. Is that about right?

Dr Smith—The products have a long-term use because they have long half-lives, so a single source might be used on hundreds of jobs.

Senator CARR—So you do not have any estimates of the occasions on which your materials are used in industry?

Dr Smith—We provide them to specialists who do non-destructive testing et cetera. We do not continue into that market.

Senator CARR—So what are the industrial use implications of the shutdown of both reactors?

Dr Smith—None, because these materials have a long half-life so you can in fact have stocks of these.

Senator CARR—So it will have no impact on Australian industry whatsoever.

Dr Smith—Yes.

Senator CARR—An article appeared in the *St George and Sutherland Shire Leader* on 30 January 2007 which said that—

Senator Brandis—Is that St George in western Queensland?

Senator CARR—No, I do not think so. The article went to the question of the premature shutdown of the HIFAR reactor. Sorry; it was about the permanent shutdown of the HIFAR reactor, not the premature shutdown. You would not say it was premature, would you?

Dr Smith—No. I think 49-plus years of safe, effective operation is not premature shutdown.

Senator CARR—No, but it has shut down this year as distinct from extending to cover the gap. Some might argue that was premature.

Senator Brandis—Not many.

Senator CARR—The article reads:

The problem will not immediately affect production of nuclear medicines and industrial radioisotopes, as most have been produced at Lucas Heights since June from imported radioactive materials. This followed a small explosion in a shielded production area.

That is the position that Mr Loy put. Is that your position?

Dr Smith—I believe that is substantially what we have told you, yes.

Senator CARR—The old reactor was in fact licensed to operate until the end of this month, wasn't it?

Dr Smith—ARPANSA had offered that it could run until the end of February, yes.

Senator CARR—But it had not just offered; the reactor was in fact licensed to operate.

Dr Smith—Yes.

Senator CARR—So it was prematurely shut down. You did have a license to operate, but you ran out of fuel.

Dr Smith—We did not even run out of fuel. I made the management decision that I wanted the resources concentrated on building the new reactor, commissioning the new reactor, rather than continuing to operate HIFAR under the difficulty of the staffing situation that Dr Cameron explained.

Senator CARR—So how much fuel is in reserve that was not used?

Dr Cameron—Only a few weeks worth.

Senator CARR—Which would have taken you up to the end of your licence period?

Dr Cameron—Yes, and that is why those two periods were chosen. Essentially the fuel would have run out at the end of February.

Senator CARR—But you shut the reactor down before all the fuel had been expended.

Dr Cameron—That is correct.

Senator CARR—And while you were still licensed to operate that reactor.

Dr Cameron—That is correct.

Senator CARR—When do you expect HIFAR materials to be transferred to the proposed waste facility in the Northern Territory?

Dr Smith—We are beginning now the process for decommissioning HIFAR. That process has some immediate work to be done in removing nuclear materials from the reactor now. Then there will be a period of long-term planning for minimising the waste that will come

from the demolition of HIFAR, and we expect that that demolition will begin around 2015, 2016, 2017.

Senator CARR—So when will materials be transferred to the Northern Territory?

Dr Smith—After 2017 probably.

Senator CARR—What budgetary provisions have you made for decommissioning and transferring HIFAR materials?

Dr Smith—The costs of decommissioning are included in our accounts, as required by the new accounting standards. They are fully available and costed in our accounts right now.

Senator CARR—So what are the costs?

Dr Cameron—The approximate cost of the full decommissioning process—that is, all stages through to taking it to the greenfield site—is about \$50 million.

Senator CARR—What are you doing with the heavy water from the HIFAR reactor?

Dr Cameron—Stage 1 of the process is to remove the fuel and the heavy water. The fuel will go into fuel storage and it is then transported to the United States. In the past, with the heavy water, we have looked for an overseas vendor that will take that back. They have the option to then clean it up and resell it. That would be our first option.

Senator CARR—To sell it.

Dr Cameron—Yes.

Senator CARR—Where do you expect to sell it? Where will the vendor come from?

Dr Cameron—There are a number of vendors around the world. The current batch came from Canada. They are a very large producer of heavy water. They have a process where they can take water back from existing reactors, clean it up and resell it as new heavy water.

Senator CARR—Who are they? What is the name of the company?

Dr Cameron—AECL, which is Atomic Energy of Canada Ltd.

Senator CARR—And so that is where you would expect to sell it?

Dr Cameron—There are a number of places around the world that sell heavy water. We will do it on the basis of who will give us the most money for the water.

Senator CARR—So it is a tender arrangement, is it?

Dr Cameron—Yes. It will be a commercial arrangement as to the best terms we can get for that process.

Senator CARR—How will you know you are going to get the best terms? What is the process? Is it a tender; is it a trade sale?

Dr Cameron—It is a process of indicating to them the quantity of heavy water that we have and asking for their terms and conditions for taking that back. We will see what dollars we can get from that.

Senator CARR—How do you know that it is the best value for money? I cannot follow the process.

Dr Cameron—We will go to a number of the people who are likely to take such heavy water back and we will see what the best commercial deal is that we can do. In the end it is more important to us that they take it back than arguing about dollars.

Senator CARR—Yes, I would have thought so. What is the quantity?

Dr Cameron—We will probably have to take that on notice because there is a reserve tank as well as a main tank.

Senator CARR—I have a discrepancy that I am trying to work through. How long is it going to take to decommission the reactor? What is your current estimate?

Dr Cameron—We will have an initial stage, which at the moment is where we put it into care and maintenance. We will extract the fuel and the heavy water and drain the liquids. Then it is really no longer an operating reactor; it is just a block with some holes in it. We will leave that for a period of approximately 10 years. During that period, the radioactivity will decay significantly. After that 10-year period, we will start the process of demolition.

Senator CARR—Is it still your view that there are three stages to the decommissioning process?

Dr Cameron—That is correct.

Senator CARR—The first stage will take 10 years.

Dr Cameron—No, the first stage is the process of removing the fuel and the heavy water, draining the liquids and putting the reactor into a safe state. That means replacing some of the ventilation systems and making sure we can monitor it. Then we will have a care and maintenance—

Senator CARR—So basically sealing it.

Dr Cameron—A reactor is sealed anyway, of course, so we will just be maintaining the ventilation and the sealing in the building, yes. Then we will have a care and maintenance stage of 10 years. We will monitor it over that 10-year period. But essentially it is not a reactor; it is just a building with some radioactive materials. During the 10-year period we will obviously be taking advice from overseas on best practice—what other people have found—and we will be planning that process of decommissioning. Then, when we have the plans and the plans are all approved, we will begin the actual demolition itself.

Senator CARR—So the removal of the fixed equipment is in the second stage?

Dr Cameron—We can remove non-radioactive equipment in this first stage. So we could remove cooling towers and other outbuildings and things which are not germane to the reactor building itself.

Senator CARR—The fixed equipment with regard to the reactor itself will not be removed for 10 years?

Dr Cameron—No. The actual bits that constitute the nuclear reactor will remain there until we get to the demolition stage.

Senator CARR—That goes to what I understand is referred to as the reactor biological shield and internals. Is that what that term means?

Dr Cameron—Yes.

Senator CARR—How long will the third stage take to complete?

Dr Cameron—Again, we will be learning from experience overseas, and that is the advantage of taking some time to plan appropriately, but we expect about two or three years.

Senator CARR—Two or three years?

Dr Cameron—We cannot tell you at this stage exactly, because the method we choose to do the demolition will determine how long it takes. We will obviously take advantage of what people are learning overseas but, we expect, in two years or so.

Senator CARR—So the whole project will be completed inside of what—13 years?

Dr Cameron—That is correct.

Senator CARR—Thirteen?

Dr Cameron—Again, the issue is that it is our preference not to leave legacies for future generations, so we have gone for a prompt decommissioning process.

Senator CARR—Sure.

Dr Smith—This is standard procedure. It has in fact been demonstrated in one-gigawatt power reactors overseas that they have been fully decommissioned in that time frame.

Senator CARR—Okay. What confuses me about this is the following. Officers have made similar statements on ABC Radio on these questions this month. Yet I have here a letter from John Rolland, Director of External Affairs, dated 9 September 1992, which was in response to correspondence from people who raised issues about the decommissioning process. In this letter he said that the reactor decommissioning process is in three stages, as you have said: firstly, the removal of spent fuel and so on; and, secondly, the dismantling and removal of fixed equipment and a care and maintenance period of 30 to 50 years. The third stage, according to the letter, is:

Dismantling and removal of the biological shield and reactor internals after a period of 50 years. This would allow the return of the site for unrestricted use.

Dr Cameron—That is correct. That was the view at the time. I think the practice has moved on since that time.

Senator CARR—I see. Can you explain to me how, in 10 years, you have taken the estimate to decommission and return the site down from 100 years to 15 years—which I think is your best estimate, or the longest estimate you are now using? I will table that letter—if I could, Chair?

CHAIR—Yes.

Dr Smith—Can I intervene to say that in reactor decommissioning there are three strategies that are available, and these strategies have been evolving over time. One strategy is entombment, where they effectively just encase and bury the reactor. The second is what is called safe store, which is what was in that letter. At the time, the prevailing thought was that that was the best way to deal with decommissioning. The one that has now taken over is what is called immediate dismantling or early site release. The trend in the industry over that time

has been to move towards early site decommissioning or immediate dismantling. The reason for that is that there is much more knowledge about how the reactor is constructed and has been operated et cetera so that the critical facts in decommissioning are: not cross-contaminating active material with non-active material and not cross-contaminating low-level radioactivity with higher levels of radioactivity. So the balance has now been struck that people are heading for early decommissioning. And in fact there have been eight power reactors in the world that have undergone early decommissioning, and those sites are released fully for public access and public use.

Senator CARR—Unrestricted public use?

Dr Smith—Unrestricted public use and access.

Senator CARR—So you are now saying to us that in the space of 10 years your estimates have gone down from 100 years to 10 years—

Dr Smith—A change of strategy.

Senator CARR—and for unrestricted public use. Is that what you are saying?

Dr Cameron—In the space of 15 years, since 1992, yes. They were always aware of these three options. What Dr Smith has indicated is that 15 years ago the preference was for the safe storage option, which was to hold it for a long time. I think the experience has been that we can now effectively do immediate dismantling. That has two advantages: firstly, as I mentioned, we do not leave a legacy for future generations; and, secondly, we are able to use the expertise of the people who work on the reactor in the decommissioning process—and that knowledge is vital to avoiding those issues.

Senator CARR—With regard to the leakage problems, I take it you are seeking cost recovery from INVAP?

Dr Smith—It is under warranty, yes.

Senator CARR—Do you have current plans in relation to the rostering of designated health physics surveyors at the OPAL reactor?

Dr Cameron—Yes, we have current plans and these plans are currently in operation.

Senator CARR—Is it your intention to reduce the availability of these officers from 24 hours a day to 16 to 18 hours per day?

Dr Cameron—The process has changed. We will have health physics staff available during those 16 to 18 hours per day but we are now training the individual reactor operators to be health physics competent as well. They have a higher level of training and are capable of performing health physics tasks.

Senator CARR—Are you able to assure this committee that there will be no reduction in HPS coverage as a result of these changes?

Dr Cameron—That will be no reduction in the capability of health physics.

Senator CARR—I would like to get on notice a list of all issues associated with the construction of OPAL on which ANSTO is in dispute with INVAP.

Dr Smith—We will do that for you.

Senator CARR—In terms of the waste dump itself—the legislation dealt with it last year in the ANSTO Amendment Act 2006—can you confirm that ANSTO now has expanded power to store and manage radioactive waste?

Dr Cameron—Yes.

Senator CARR—Does that mean ANSTO can now be responsible for the management of the waste facilities anywhere in Australia?

Dr Cameron—Yes.

Senator CARR—Has ANSTO been involved in any of the discussions relating to the siting of the waste facilities in the Northern Territory?

Dr Cameron—Yes.

Senator CARR—This may take me a little longer than anticipated with these answers.

Dr Cameron—Maybe I should clarify siting. We are not involved in the siting assessment process but we have been involved in meeting with the consultants doing that so that we can provide them with advice on the type of data they need to collect.

Senator CARR—It would be helpful to us if you could take it on notice to provide us details of the nature of your involvement.

Dr Cameron—Yes.

Senator CARR—You currently store radioactive waste at Lucas Heights. Are there any technical or capability problems that mean such a practice—storing the waste on site—is unsafe?

Dr Cameron—We have safely stored waste on site for over 40 years and we could continue to do so into the future. However, that is a storage process, not a disposal process, and therefore it is not an ultimate solution.

Senator CARR—It is not a permanent site.

Dr Cameron—We are looking for an ultimate solution, not a temporary storage solution.

Proceedings suspended from 10.49 am to 11.08 am

Commonwealth Scientific and Industrial Research Organisation

CHAIR—The committee will resume. Senator Carr has some questions for CSIRO, and may I welcome you on behalf of the committee, gentlemen.

Dr Sandland—May I begin by apologising for the absence of our chief executive, Dr Garrett. As I believe you know, at the request of the Australian government Dr Garrett is in New Zealand participating in the Australia-New Zealand prime ministerial dialogue CEO symposium. We advised the secretary of the committee earlier that it was not possible to reschedule the meeting. So Dr Garrett sends his apologies.

CHAIR—Yes, that's fine. Thank you very much for that.

Senator CARR—Thank you very much, Dr Sandland. Dr Garrett was good enough to ring me about the matter, so I appreciate that. We have had this unfortunate situation as a result of a range of factors where three of the four agency CEOs are unable to be with us today. I am

hopeful that at the next round of estimates we will have a better strike rate than that. I will start with a question on the work that you put in for the budget. I understand that you put in a very strong bid—that a lot of work was put in by CSIRO for its budget bid this year. That's right, isn't it?

Dr Sandland—Senator, the work that we put in for budget bids through new policy proposals is of course cabinet-in-confidence.

Senator CARR—Yes, of course. But I haven't asked you that question. I am just trying to establish whether or not you put a lot of work into it.

Dr Sandland—Obviously, at the end of a triennium, we would always be putting a lot of work into our—

Senator CARR—I would be very surprised if you told me that you put a scrappy effort together.

Dr Sandland—No, we have not.

Senator CARR—In fact, it has been put to me that it was a very strong bid but that it was dragged down by the low quality of the overall DEST bid. That is correct; isn't it?

Dr Sandland—It is not appropriate for me to comment on the overall DEST bid.

Senator CARR—Are you able to tell me whether or not it is true, as has been reported, that PM&C officials described the CSIRO component as the crown jewels of the DEST bid?

Senator Brandis—As Senator Carr well knows, even though he is coming at this in a slightly oblique way, these questions plainly go directly to the budget processes and are not appropriate for the officers to be asked.

Senator CARR—I do not think I was being oblique at all. Either way, I was very sorry that your bid was not successful. Are you disappointed with the announcement of the funding of less than inflation rate for the next four years?

Dr Sandland—The announcement by the minister of a longer term funding agreement for CSIRO over four years rather than the three years it was previously will certainly help the certainty of science planning within the organisation. In relation to the quantum that was announced, it is broadly consistent with current financial forward estimates, adjusted for inflation, with an additional financial year. It is also true that the minister made at least one public statement to the effect that this announcement reflected only the outcomes from the first stage of the budget process and that there may be consideration given to further funding for CSIRO in later stages of the budget process. But, of course, all of that discussion is in fact cabinet-in-confidence.

Senator CARR—Absolutely. But the minister has made a statement, so is it no longer cabinet-in-confidence?

Dr Sandland—The specifics of the issues are all cabinet-in-confidence.

Senator CARR—The issue is that the minister has made the statement that you may get a chance to get additional money in later stages of the budget process—

Dr Sandland—What I said was that the announcement reflected only the outcomes from the first stage of the budget process and there may be consideration given to further funding for CSIRO in later stages of that process.

Senator CARR—You sought an additional \$250 million—is that correct?

Dr Sandland—All of that discussion is cabinet-in-confidence and I am unable to comment further.

Senator CARR—But would I be wrong in saying that was the figure?

Senator Brandis—Senator Carr, you have already asked the question and the officer has given you a proper response. You know it is a proper response. I ask you not to ask the same question in slightly different words again.

Senator CARR—Is it the case that you sought funding over three or four years?

Dr Sandland—We sought funding over four years.

Senator CARR—Is it the case that you placed a great emphasis on the need for additional funding for flagships as well as extra funding for research hubs, infrastructure and infrastructure support?

Dr Sandland—That goes to the previous issue of cabinet-in-confidence of the proposals that were put forward.

Senator CARR—A two per cent annual increase for the next four years is actually below the inflation rate, isn't it?

Dr Sandland—I might ask Mr Whelan to comment on the precise nature of that calculation, but it is broadly consistent with the agreement for a rate of inflation that is used for budgetary purposes.

Mr Whelan—Senator Carr, I think you asked the ARC earlier this morning about—

Senator CARR—Indexation rates.

Mr Whelan—Yes. To the best of my knowledge, we have the same factor that the ARC has—approximately two per cent. There are some other factors that come to bear in the forward estimates such as the adjustments over financial years for a number of measures. In our case, additional funding will flow to CSIRO next year for the flagships program. There was a further increase from an earlier decision by government and from year to year there are some adjustments to another measure of the government to do with the sale and lease-back of property, where CSIRO receives supplementation for lease costs. In the broad scheme of things, they do not have a massive impact on that underlying rate of indexation. On average, it is two per cent.

Senator CARR—That is right. What is the current rate of inflation?

Mr Whelan—I guess the current rate of inflation is something that ABS and the Treasury comment on from time to time.

Senator CARR—Yes.

Mr Whelan—If you are going to the issue of the underlying cost of doing science and research, then I think it would be fair to say that, at an underlying level, it is driven by a mix

of factors. In our case we have an enterprise agreement with our staff that provides them with a four per cent increase in salary on an annual basis. That represents about 60 per cent of our cost.

Senator CARR—Yes.

Mr Whelan—Property costs—the cost of constructing facilities—is probably rising, on average, by about eight per cent. Travel and goods and services together are probably about 10 per cent of our costs. We have had a fairly heavy focus on that over recent years and, through the national procurement mechanisms and whole-of-organisation purchasing, we are managing to bring those costs down. If I think about the effective rate of cost increases that we face, taking all those factors into account, you would probably end up at around four per cent.

Senator CARR—Yes.

Mr Whelan—Then, like every other public sector organisation—and, I suspect, most commercial organisations in the country—we look at the discretionary and other factors that we can bring to bear to get those costs down such that we can operate within the rate of funding increase we get from government and external revenue. I think we have discussed before in this place with Senator Wong—and I think perhaps yourself earlier—the program we put in place in our current strategic plan to implement a range of reforms in the way we provide support. I think this year we have generated—over and above the savings I have just talk about—about \$34 million in savings. So, net, we end up being able to operate within the level of supplementation that we get. Our major concern through this process, from an efficiency viewpoint, is not to compromise the R&D capability of the organisation.

Senator CARR—Absolutely.

Mr Whelan—That is the key issue. From my assessment—and I think our science investment team would agree—we have done a pretty good job of that over the current triennium. And, as Dr Sandland has indicated, when we know the final budget outcomes we will seek to do the same in the future quadrennium.

Senator CARR—So what you are saying to me is that you have to find cost savings of about two per cent per year in terms of the rate of increase to maintain a flat-line activity level in CSIRO. That is the difference, isn't it? If you are getting a two per cent increase in budget and you have a four per cent increase in costs you have to find savings of about two per cent a year.

Mr Whelan—Yes, and I think in my 25-odd years in the public sector, and a number of agencies I have worked in, that is not a particularly unusual situation. Like every large organisation, we are always striving to be more efficient and I think the government's funding parameters encourage public sector agencies to do so.

Senator CARR—And you have an efficiency dividend of what?

Mr Whelan—The efficiency dividend only applies to a proportion of CSIRO's costs. We had a negotiation with Finance, I think, about six or eight years ago when they agreed that it was not appropriate to take an efficiency dividend on our R&D costs, but there is an amount that is applied to some of our corporate costs.

Senator CARR—That is on top of these savings?

Mr Whelan—That is included in the figures I gave you. The annual increase of two per cent is net of any efficiency.

Senator CARR—Do you have an aggregate figure on increase in R&D costs? This is similar to the question I was asking the ARC before about the cost drivers on R&D.

Mr Whelan—I was trying to go to that earlier. If you think about our costs, 70 per cent of our costs are on people and facilities. What we are trying to do all the time is to attract and retain world-class people because that drives world-class science. So there is no doubt that the cost factors in those two areas are going up. So we seek to drive the other part of our expenses hard so that we can mitigate that, and to date we have been pretty successful.

Senator CARR—We will come to how successful you have been. That is the nature of the discussions we have from time to time, and I am very pleased to be able to have them with you so that you are able to explain to me how well you have done in retraining world-class people. You sought money for infrastructure renewal. What are the consequences of not receiving it?

Mr Whelan—I think we have been over the ground of talking about matters that are budget-in-confidence. I am not going to speculate today on the outcomes of the budget process.

Senator CARR—When are the budget processes concluded as far as you are concerned, Dr Sandland?

Dr Sandland—Are you talking about CSIRO's budget process?

Senator CARR—No, I am saying that there is a chance here for CSIRO to go back to the well. This could be a surprise.

Dr Sandland—We will know the outcomes of CSIRO's budget on budget night.

Senator CARR—That is, for you, the conclusion of the process but the minister has invited you to return to the well.

Senator Brandis—Senator Carr, I think that these questions about the budget process—for reasons that I hardly need to explain to you—are best avoided.

Senator CARR—But, Minister, you would be appreciative of the fact that the minister herself made a statement. The minister you are representing here said that CSIRO has an opportunity to go back to the well.

Senator Brandis—The minister's statement, which as you rightly point out is a matter of public record, speaks for itself. Senator Carr, a senator as intelligent as you are does not need to have it pointed out that one cannot use that statement, which is a matter of public record, as an avenue to explore matters which are not a matter of public record nor a proper subject of questions for this committee.

Senator CARR—I am going to ask questions about site consolidation, which is obviously a way of saving money in these straitened times. I will ask first about revenue from property sales. What revenue from this source do you expect for 2007-08?

Mr Whelan—We have not finalised estimates for that for next year.

Senator CARR—What was it for the last year?

Mr Whelan—Are we dealing with additional estimates?

Senator CARR—We are.

Mr Whelan—The figure has not changed. I just wanted to make sure I was referring to the right document. We have an estimate of proceeds from sales of assets this year of approximately \$5 million.

Senator CARR—Do you have any expectation of what you will receive in property sales over the forward estimates period?

Mr Whelan—We have the same figure in each of the out-year estimates. That does not reflect just property sales; that reflects the revenue that would flow from the sale of any asset. But it would be fair to say that the bulk of that revenue would be associated with property sales.

Senator CARR—How much is that?

Mr Whelan—That is \$5 million per annum. That is the current forward estimate. As we have discussed in this place before, it can move up and down.

Senator CARR—That is right. The property values move up and down, so that stream can move up and down. Will that revenue be retained by divisions or is that consolidated centrally?

Mr Whelan—The revenue from sale of assets, as a general rule, feeds the capital program of the organisation. As we have discussed here previously, I think, we do not seek to sell assets purely for the sake of generating revenue. The driver for a sale of assets is either a strategic decision, as we have discussed before, about consolidating particular property holdings or it could be, as we discussed at the last hearing, a matter that a particular piece of scientific equipment is no longer up to scratch from a scientist's perspective and we need to replace it and then we seek to sell what we then describe as a surplus asset. That is good management and we will continue to do that over time.

Senator CARR—But the bulk of your money for this item comes from the sale of property.

Mr Whelan—No doubt. If you look back historically over the last five years, the bulk of revenue from asset sales has been associated with property.

Senator CARR—What proportion are we talking here?

Mr Whelan—The vast majority. Without even looking at the numbers, I can say that at least 80 per cent of the revenue would be from property.

Senator CARR—Is the revenue used for upgrades or for other reasons?

Mr Whelan—The revenue, as a general rule, goes back to fund further capital investment.

Senator CARR—Always for capital investment?

Mr Whelan—By and large.

Senator CARR—So you are not considering property sales to make up the gap between what you have sought from the budget process and what you have actually been receiving?

Mr Whelan—I will ignore the part of the question that relates to the budget process and I will just deal with property sales more generally. We do not seek to sell property for the sake of generating revenue. The revenue that flows from property sales is normally a function of a strategic decision we have made to either relocate research or consolidate research. That has been the pattern certainly over the last four years that I have been back with the organisation.

Senator CARR—On your table on page 73 of the 2005-06 annual report, in terms of performance, even with all the group results included and investment and consulting services, revenue actually fell by \$43 million—about 11 per cent short of the strategic plan. Is that right?

Mr Whelan—Yes, it fell short. I have not checked your maths there, but certainly it fell short.

Senator CARR—By \$43.2 million.

Mr Whelan—I think we have given the reasons behind that—here and in questions on notice—before, but to summarise them, there are probably three major drivers. The first is that some functions the organisation had when the current strategic plan was developed are no longer with the organisation. I guess the best example of that is the National Measurement Laboratory, which is now part of the National Measurement Institute, which is part of the DITR portfolio. External revenue associated with that, which I think was in the order of \$5 million per annum, now appears in DITR's or NMI's books. The second major factor relates to the accounting treatment for revenue for joint ventures. CSIRO has two joint ventures: Food Science Australia and Ensis. We are not allowed under the accounting rules to bring the revenue that those organisations bring to account in our books. I think there is a footnote to the table that reflects that. The third factor is that we overestimated the amount of revenue that we would generate—but, taking those other factors into account, that is actually the smallest component.

Senator CARR—IP and royalties, for instance, was estimated at \$46 million and was \$8.9 million short. The estimate for external revenue fell short of the target despite a one-off reinstatement of \$25 million receivable from AMC. That is right, isn't it? That is what the notes say.

Mr Whelan—The notes do say that, but the AMC revenue relates to 2001-02; it is not relevant to the current year.

Senator CARR—I see. But, in terms of your comparisons, is it not the case that you are considerably short in your estimates?

Mr Whelan—Taking into account the two factors that I have talked about—the National Measurement Laboratory and the treatment of joint ventures—no, I would not accept we are substantially short. We are short, no doubt about it. I am happy to sit down and do the maths and put the percentage on the table, but substantially I think that is incorrect. In fact, looking at the external revenue growth of the organisation over the last four years, it has averaged about 6½ per cent.

Senator CARR—Looking at that table for 2005-06, the strategic plan figures are in the final column. Can you tell me if the figure in the final column, the one showing CSIRO's strategic plan target, should be compared directly to CSIRO alone or to the CSIRO group?

Mr Whelan—Sorry, to the group.

Senator CARR—When the 2003-07 strategic targets were set, did the figures assume the inclusion of the group results or just the CSIRO ones?

Mr Whelan—The difference between CSIRO and CSIRO group is the joint ventures I have just talked about. So, if we are going to make the comparison, to get it closer, we would take CSIRO group and the strategic plan. The gap between those two on my figures is approximately \$21 million. There is a footnote there that talks about the impact of the National Measurement Laboratory. My apologies; earlier I said \$5 million; it is a factor of \$3 million.

Senator CARR—The footnote refers to the AMC. Was that actual money received?

Mr Whelan—The organisation did receive money from government. It was before my time. The organisation did receive money from the government to fund research related to AMC in 2000-01 and 2001-02, as I recall.

Senator CARR—Was the 2005-06 budget struck on the figure of \$1.006 million in the strategic plan or was it struck on some other figure?

Mr Whelan—I am not following your question.

Senator CARR—What was the basis of CSIRO's 2005-06 budget? How did you reach that conclusion?

Mr Whelan—Informing the view on the value of the financials, at least, for 2005-06, we did that planning through late 2004 and early 2005. We took account of the organisation's trading circumstances at that time.

Senator CARR—Could I have a copy of the budget that was originally approved by the CSIRO executive and board?

Mr Whelan—I am happy to take that on notice.

Senator CARR—Can you provide me with an updated copy of the table which appears in your annual report with the target for the 2006-07, including the six-monthly report of the first half of the current financial year?

Mr Whelan—Would you like me to take that on notice?

Senator CARR—Yes. How are the external earnings going this financial year? Are they on track?

Mr Whelan—External revenue at the moment, to the half year, is up about three per cent on last year. It is up \$4½ million as of the same period last year.

Senator CARR—So that is on track.

Mr Whelan—Is it below budget but it is certainly growing.

Senator CARR—How much below budget is it?

Mr Whelan—It is three per cent below budget for the year to date.

Senator CARR—So you need the additional revenue in the budget cycle. That is the point, isn't it? Your estimates are down, your performance is down in terms of external revenue and your budget bid has now been rejected.

Mr Whelan—I will deal with two of the statements there, but not the first. With respect to external revenue being down, as the evidence that I have just given you clearly demonstrates, external revenue is not down; external revenue is growing, and has grown consistently. But you are correct that for the year to date it is lower compared to the budget. We have a variance to the budget. In terms of how the organisation funds itself, there is no doubt that the organisation is largely dependent on the government—60 per cent of our funding comes from the government. We are so much dependent on them that in our financial statements there is a statement that says, 'The organisation is economically dependent on the Commonwealth and the provision of those resources,' and I certify that on an annual basis so that the chairman can sign the accounts. I am not going to sit here and debate that we are dependent on the Commonwealth for funding.

Senator CARR—The flagships' share of CSIRO's appropriation was 24.2 per cent in 2005-06. What is the equivalent figure for 2006-07?

Mr Whelan—It is 28 per cent on current estimates. That is not finalised yet. We have not finalised the budget for next year. But current planning suggests that it will grow to 28 per cent.

Senator CARR—Do you have forward projections on the estimates?

Mr Whelan—We are preparing forward estimates now as part of the budget process.

Senator CARR—You refer in your annual report to a \$7.7 million or 20 per cent budget shortfall in external revenue for the flagships for 2005-06. External earnings target was \$34.5 million for 2005-06. What is the equivalent target for the current financial year for flagships?

Mr Whelan—The budget for external revenue for flagships for 2006-07 is \$41.3 million.

Senator CARR—If we go back over the last four years, in how many of those four past years have your external revenue targets been met or exceeded?

Mr Whelan—In total for the organisation?

Senator CARR—Let us do the total for a start.

Mr Whelan—One or two—I would need to check that.

Senator CARR—So at best it is a 50 per cent strike rate.

Mr Whelan—That is not the way I would turn the phrase, but, yes, we have achieved it in one or two of those years.

Senator CARR—How long have the flagships been there?

Mr Whelan—Approximately four years.

Senator CARR—In how many years have you been successful in meeting the target?

Mr Whelan—This is a matter that you would note that we have also covered in our annual report and here before. If I take into account the investments in kind that have been made by our partners, then in three of the four years we have achieved the number. But if we do not take those into account, then we have done so in none of the years.

Senator CARR—Investments in kind when you are dealing with collaborations are notoriously difficult to quantify, aren't they?

Mr Whelan—They are. But in this case we have put a fair bit of effort in trying to estimate those.

Senator CARR—Relying on universities in particular to give accurate investment in kind figures would have been an interesting exercise.

Mr Whelan—The circumstance is slightly different to a university in that in the vast majority of instances the investments are made by commercial partners. Particularly in respect of the arrangements that flow through the flagship collaboration fund, there are a series of schedules and commitments that go with that. We are not talking about numbers just worked out on the fly.

Senator CARR—But, if we do it terms of actual dollars, of the four years, in how many did you say that you had—

Mr Whelan—None.

Senator CARR—Can you give me the budget and targets for each of the flagships for 2005-06, together with the income and expenditure statements?

Mr Whelan—I am happy to take that on notice.

Senator CARR—Thank you. Would you be able to provide the budgets adopted for each flagship for the current financial year, together with the financial and performance targets?

Mr Whelan—That is included in the earlier question, but we will get you that.

Senator CARR—Thank you. The additional funding that you sought in the budget round will now have to be made up from other sources, because it is not there. Where will it come from?

Mr Whelan—I think this territory has been covered by the minister.

Senator CARR—Is it fair to say that the project development of the flagships will now have to slow down?

Dr Sandland—The project development of the flagships is part of our science investment process. We have merged those two processes, and so flagship themes bid for funding within CSIRO along with divisions. Therefore we have, on the one hand, the continued growth and evolution of the flagships, which is part of our planning process. That process has not yet been finalised, but there is nothing particular in what you said that is actually going to slow down the growth of the flagships.

Senator CARR—I see. How much extra revenue will you now need to divert from divisional research budgets to meet your projected growth plans for the flagships?

Dr Sandland—The research that is carried out in the flagships is in fact carried out within divisions. We are using the flagships to focus our research on a number of key national challenges. In doing so, we are not diverting funds from divisions so much as having divisions participate in the success of the flagships, and that is an ongoing process.

Senator CARR—What is happening to the proposals to establish new flagships in advanced manufacturing and in areas of minerals?

Dr Sandland—There has been consideration of a number of thematic proposals within our budgetary process both for manufacturing and for Minerals Down Under. That is an ongoing process; it has not yet been finalised within our budgetary process.

Senator CARR—The proposals to establish advanced manufacturing and Minerals Down Under had been considered for some time within CSIRO, had they not?

Dr Sandland—The Minerals Down Under proposal has been around for several years. The advanced manufacturing proposal is less mature than that.

Senator CARR—How far has the planning for the new flagships progressed?

Dr Sandland—I am not sure that I understand your question. I have said that work has gone on within CSIRO into planning themes that could be addressed by flagships in that area. They are being considered along with the existing flagships and with divisional themes within the science investment process.

Senator CARR—So why were these areas chosen? Were there others?

Dr Sandland—We have our eye on potential flagships as a matter of course. A flagship has certain characteristics. It needs to be addressing a national challenge and it needs to be focusing on an area which has, if you like, a long-term goal that will really make a difference and where we can bring together research from across the organisation to focus on those areas. So we, as a matter of our normal planning, consider the possibility of flagships in other areas from time to time.

Senator CARR—So these were the two that were most advanced in that process?

Dr Sandland—The manufacturing flagship possibility has been mooted relatively recently. Within our internal planning we have a number of possibilities that are not yet mature enough to speak about. They are CSIRO-in-confidence. Minerals Down Under is by far the most advanced of alternative flagship proposals.

Senator CARR—When was the manufacturing flagship first proposed? Was that more recently?

Dr Sandland—It was first proposed in one form or another, which was not really an investable proposition, about 2½ years ago.

Senator CARR—And you say it has been more recently proposed. When was that?

Dr Sandland—As part of our internal strategic processes we have considered the possibility of a flagship in that domain, but that strategy has not yet been finalised.

Senator CARR—You did say it has more recently emerged.

Dr Sandland—Yes. It has emerged in parallel with our strategy process.

Senator CARR—Where will it be located?

Dr Sandland—It is premature to discuss that.

Senator CARR—Is any external funding committed to it?

Dr Sandland—The flagship is not at the stage of planning that would enable us to talk about the commitment of external funding to it.

Senator CARR—That was the focus of your budget bid wasn't it?

Dr Sandland—I refer to the comments made previously by the minister in that regard.

Senator CARR—The establishment and transformational costs within CSIRO for establishing flagships has been higher than anticipated, has it not?

Dr Sandland—That is correct.

Senator CARR—By what amount?

Dr Sandland—We have not quantified that amount precisely.

Senator CARR—Are you able to identify what the direct and indirect costs of establishing a flagship program have been?

Dr Sandland—We can certainly identify the direct costs. As you have already noted, the external revenue associated with the establishment of flagships is lower. The reason it is lower than for other parts of the organisation relates to the fact that we are looking further out in terms of the goals of those flagships. As a result, the potential for gaining immediate industry financial support for those projects is less than for some of our other work. Nevertheless, we felt that it was imperative as an organisation to think about how we could really make a difference to Australia by focusing on some of these national challenges, as we have done. Therefore, there was a cost associated with that. As you are aware, the government did provide additional funding through BAA 2 to the flagship initiative of the order of \$305 million over seven years. We have invested that money extremely wisely. There are costs of establishment in terms of the change in external funding expectations that one might associate with that.

Senator CARR—What are the total establishment and transformation costs within CSIRO of establishing flagships?

Dr Sandland—We do not have a precise enumeration of that figure.

Senator CARR—Did you have an estimate of what it would cost when you started the process?

Dr Sandland—Obviously, we do financial planning as we do with the commencement of any initiative. Rather than look at the specific costs of funding the flagships we looked at the financial viability of the organisation as a whole, given that the extent of investment that we wish to make in flagships—

Senator CARR—I understand that.

Mr Whelan—I have some details that might help go to where you are trying to get. The direct costs of administrating the flagship activity in terms of research, leadership and oversight are for the six flagships approximately \$7.8 million. To put it in context, that cost is

equivalent to approximately \$80 million for the 20 divisions that manage their R&D programs. The point I want to draw to your attention is that the direct operating costs associated with the administration of a flagship by and large are lower than running a division. There are two major reasons for that. Flagship does not have to worry about capability management; that is what divisions focus on. And we had a very heavy emphasis on wanting to make sure that through the flagship program we did not create another layer of overhead in the association.

Senator CARR—Sure. How much was the additional funding the government gave you to run these programs?

Mr Whelan—It was \$305 million over seven years.

Senator CARR—Going back to the two flagships that are being proposed in minerals and in manufacture, how many staff were working on those projects?

Dr Sandland—Those flagships have not yet been established; therefore, the analysis that we are doing, as I spoke about earlier, in our science investment process is at a non-finalised stage, shall I say. They are still part of a consideration that is ongoing. The final investment profile has not yet even been cleared by the executive team.

Senator CARR—But how many staff did you have working on these proposals?

Mr Whelan—I do not think it is possible to distinguish in terms of effort the number of staff working on these proposals. As I think Dr Sandland has indicated to you, the context for us thinking about any new flagships—and you have talked about two that we are giving some consideration to—is the organisation's next strategic plan. We have had a process in place with our executive management council—if you like, the divisional chiefs, the flagship directors and other enterprise executives—over the last 12 months looking at a range of options associated with that strategy. It is in that context that the two matters you are referring to have come up. I cannot separate out the resources to tell you the effort on that.

Senator CARR—I understand the point you make. Did you have team leaders for those particular projects?

Mr Whelan—In terms of a strategy viewpoint, the relevant group executives—the members of the executive team responsible for those functional areas—have had carriage of that. For example, for the two cases that you have referred to, that would have been Dr Michael Barber and, before him, Dr Rod Hill. They would have been responsible at the executive team level for working that through with their teams. But, to the best of my knowledge, there are not dedicated resources specifically working on those.

Dr Sandland—I would like to add that a flagship only becomes a flagship, as part of our governance processes in the CSIRO, if it is endorsed as a flagship by the flagship oversight committee. While those themes are being considered at this stage by the science investment process, there has not yet been a meeting of the flagship oversight committee to consider whether these would be flagships anyway. That will only be carried out after that investment decision has been made.

Senator CARR—Are you able to provide me with a table showing, on both an annual and a cumulative basis since the flagship program commenced four years ago, what funding has

been redirected from each of the divisions to flagships and to which flagships that money actually went?

Mr Whelan—We could probably come close to that. In terms of money redirected from divisions, no, we will not be able to do that because we have not redirected money from divisions. Divisions and flagships both generate proposals for investment and then they get funded. If your question goes to what is the amount of investment and what is the source of it for each of the flagships, we can provide you with that data.

Senator CARR—Thank you very much.

Senator MILNE—I want to start the process of questions as to staff issues. You mentioned that one of the key strengths of the organisation and its competitive edge is attracting world-class research and that this is an essential strategy. What are the current barriers to your being able to (a) attract them and (b) hold them?

Dr Sandland—We have put a considerable amount of work into attracting some key and highly talented scientists in recent times. Indeed, we have made some very strong appointments in recent times through a number of processes. We have turnover, from time to time, of a number of staff who decide that the grass is greener on the other side or in some cases because the priorities of the organisation have shifted away from their particular areas of research. I think we have an excellent track record of attracting absolutely first-rate people into the organisation. I could go through a list of a number of people whom we have been able to attract in recent times. Recently, following some adverse media about staff losses, we actually did our own little calculation about some of the top talent that has been attracted into the organisation. I had the privilege of working in a seminar just the other day with one of our new appointees, Professor Mark Morrison, who has come from Ohio state to take up a key position in the CSIRO, reflecting the quality of the people that we are bringing into the organisation. I have to say it is sensational.

Senator MILNE—Are you able to characterise which sections of the research field that the ones that have left were in and the total number that have left and the sections that they were in?

Dr Sandland—We do have figures on the total number of staff who have left and we certainly have that by research division and can provide that for you. We do not necessarily have the details on the precise research area that people have been involved in. Some of the people who leave, by the way, are people whose terms have recently ended and whose contracts have not been renewed for a variety of reasons, often because they were brought in for a particular short-term need. But we certainly have those figures by divisions and can provide those to you.

Senator MILNE—Are you aware of the media reports and other discussion about there being a culture of fear and intimidation in the organisation, particularly for people who work in the area of renewable energy and climate science?

Dr Sandland—I have certainly heard those rumours. As you may or may not be aware, as a result of some of those discussions earlier we undertook to review our public comment policy. We have done that with extensive consultation with our staff and indeed have received very positive feedback from staff about the changes that we have made to our public comment

policy. I think it is only fair to point out that in recent times there have been a number of comments about climate change in other key environmental areas, particularly from the point of view of the science, made by CSIRO scientists, who have really led the intellectual debate there. For example, Dr John Church, in Tasmania, has commented a number of times. This is perfectly within our guidelines as an organisation. Where the comment is on the science and the scientific work that has been carried out by the scientists, we believe that our scientists are clearly the people who should be communicating those outcomes. Where, however, it comes to how this plays into policy, we have taken the position that CSIRO people do not comment on government policy, nor do they comment on opposition policy.

Senator MILNE—How do you draw the line between the science, which may have an implicit criticism of government policy, and comment? Is there any reference to a minister's office before a scientist would make any comment?

Dr Sandland—No, not when it relates to the science. If that science impinges on an area in which government has policy, we believe that it is our responsibility to fearlessly publish the science that has been carried out. That will usually be carried out through scientific publications, and clearly that is sometimes picked up by the media. We are also aware as an organisation that, in order to maximise the impact of the research that we need to do, we need to have relations with various parts of government, which might include the ministerial office but certainly would include areas of the bureaucracy where decisions are actually taken. We want to make sure that our science is best positioned to influence in a positive way those decisions, recognising that policy decisions are taken with a whole lot of other factors over which we have no control, ability or willingness to comment. We are engaged on an enormous number of fronts at any one time with various areas of government about our science and where we can best position our science to help in making key policy decisions.

Senator MILNE—But clearly at points there will be a grey line about what is policy, what is science and how that will impinge on government policy. What is your process in those cases as far as contacting ministerial offices goes before you allow anyone to say anything?

Dr Sandland—It is on a case by case basis. But if it does relate to science that has been carried out and published in reputable journals such as *Nature*, for example, we basically do not have a process that says, 'Now you can't talk about this until we have spoken with Minister X around that.' That is where the science has been published in a reputable journal. Science that is speculative or a hypothesis is not something that we would encourage our scientists to publicise, but what we do encourage them to do is talk about the science that they have actually done.

Senator MILNE—So there has never been an occasion where a scientific paper has been suppressed or doctored because it may have implications for government policy?

Dr Sandland—To the best of my knowledge, a scientific paper has not been doctored or suppressed because of its potential implications for policy. We do in fact have an internal review process for our scientific publications. If in a paper it was said, 'Therefore, the government should do X ...' in that situation we would say, 'You can talk about the science, you can talk about the implications, you can talk about the models and what they are predicting, but you can't say, "Therefore, the government should do X".' So we may in that

situation make that kind of comment, and I am aware of one or two situations in which that has happened.

Senator MILNE—Who is on your internal review panel?

Dr Sandland—It is usually carried out on a divisional basis, so it is usually a local process. The chiefs and flagship directors would be the final arbiters of whether a paper is in fact suitable for publication. Only in very rare cases would it go beyond a chief or a flagship director. In fact, I am not aware of any such cases where it has.

Senator MILNE—Okay. I want go to the issue of geosequestration in that context. There has been a lot of media speculation about a CRC paper, from the Cooperative Research Centre for Coal in Sustainable Development, that suggested that that was withheld from publication for a long time. It now is published. The date on it is 2005 but it did not hit the website until three-quarters of the way through 2006. But the one I particularly want to ask about is the one referred to in the media as a CSIRO report on the feasibility of geosequestration, carbon capture and, I understand, storage that was so damning that all copies have been confiscated and possibly destroyed. Can you tell me if there is a paper on geosequestration, post- or pre-carbon capture and/or storage, that has been suppressed? Is there a paper and, if there is, when is it going to be published?

Dr Sandland—To the best of my knowledge and, with a great deal of inquiry following that report, and our own internal investigations, no report has ever been ordered to be destroyed or suppressed in that way. That is my clear understanding in that area. I do have with me Dr David Brockway, who is an expert in this area, who may wish to add further to that comment. We made an inquiry when we heard that report and basically the answer is no, no such report has ever been destroyed. Is that correct, David?

Dr Brockway—That is correct.

Senator MILNE—Could I ask directly about the products that CSIRO has worked on in the last 12 months on pre or post capture and sequestration.

Dr Sandland—Dr Brockway would be the best person to answer those questions.

Senator MILNE—What work is CSIRO currently undertaking, what research is ready for publication and what is in process and what products are being developed? Can you give us an assessment of what you have been doing, what you have published and what is ready to be published and tell us whether you know of anything that has been suppressed for any reason.

Dr Brockway—I am not aware of anything that has been suppressed. As Dr Sandland said, there was a great deal of inquiry about that. Senator, you asked a question about what we are doing in terms of pre- and post-combustion. There is in fact a significant program of research in CSIRO that relates to those sorts of technologies. In terms of pre-combustion, we are talking about gasification technologies and we have a significant program with the CRC for Coal in Sustainable Development at QCAT in Queensland, where there are a number of people involved in that program. That is to do with gasification of coal—the performance of Australian coals in a gasification type technology.

Also, related to that, there is a program in Queensland on gas separation. We want to get from gasification to a clean coal technology, bearing in mind that a clean coal technology

incorporates three main phases: the first part is the energy transformation process in gasification or combustion; the second part is the CO₂ separation or capture; and then the third part is the sequestration, usually geosequestration. I have spoken about the gasification part, but we also have a significant program on the second part. That is taking the syngas that comes out of the gasifier, converting it to a mixture of carbon dioxide and hydrogen, and separating out the hydrogen from the CO₂ so that the CO₂ can be sequestered. That is a significant program that is going on in partnership with the University of Queensland and a number of industry players; the Australian Coal Association Research Program, ACARP; a couple of generators in Queensland; and the Queensland government. That is in the Centre for Low Emission Technology, which is also in Queensland. So that is the program in gas separation.

In terms of post-combustion capture, we have a significant program developing in that area—it has been for the last two years—and that is looking at capturing CO₂ from the flue gas from existing power stations. We have a laboratory research program under way and we have what is a world unique capability in terms of a 1,000-tonne per annum PCC pilot plant, which we expect to install in various power stations around the country, to look at the performance of various sorbents' ways of capturing the CO₂ at those power stations. So we have a significant program in post-combustion capture as well—and there are other relevant programs in CSIRO.

Senator MILNE—Okay, but I asked specifically about research products—reports, analysis of those reports, the economics of your work, the liability in relation to it, the climate impacts and all that. Where is the material that you are producing? What have you produced and what are you going to produce in the next 12 months?

Dr Brockway—The CCSD program, the gasification program, is being published with CCSD reports. There have also been a significant number of conference papers and papers in refereed journals. I could give you a list of those; I do not have it with me, of course. The Centre for Low Emission Technology program, the gas separation program, has been established now for only two years, so it is at a relatively early stage, although there have been a number of conference papers et cetera presented on it. I would need to get the data on that. I do not have that with me either. The post-combustion capture program, again, is at an early stage. We have been accelerating it greatly in the last two years, and there have been a small number of review type publications in conferences. But we are several years away from really being at the stage of publishing more information.

Senator MILNE—Okay, so you are several years away from publishing the information. How many years away are we from commercial operation of this technology?

Dr Brockway—That is a really tricky one.

Senator MILNE—I know.

Dr Brockway—The general consensus is that it will be 15 to 20 years before these technologies are commercial. They do come at a cost, of course, and that has been well recognised. At the moment, for instance, if you wanted to add the cost of post-combustion capture—it does exist now and you could do it—it would be very high. It would double the

cost of generation at the power station. That is not doubling the cost to the consumer at all. I could go into that a bit more.

Senator MILNE—Yes.

Dr Brockway—It would double the cost at the generator. Our research program and our international collaboration in the area with a number of international bodies is aimed at reducing that additional incremental cost by at least 50 per cent. There will be an increase in the cost at the generator. There has to be if you are adding an additional technology. Our research program aims to reduce that as far as possible.

Senator MILNE—Does the cost to the generator include the less efficient running of the station because of the energy costs associated with it?

Dr Brockway—Yes, it does. You have hit the nail on the head about one of the key objectives of our post-combustion capture program, and that is to develop materials and new sorbents to capture the CO₂ so that in fact they use a minimal amount of energy in stripping the CO₂ from the sorbent. That is one of the key features and will be a significant part of our research program over the next five or 10 years.

Just as an aside, Senator Milne, you were asking Dr Sandland before about world-leading researchers joining CSIRO. In fact, we have managed to attract one from TNO in the Netherlands, Dr Paul Feron, who will be joining CSIRO in about four months time to lead our PCC research program, particularly in that sorbent development area. He is recognised as one of two or so leading researchers worldwide in post-combustion capture. We think it is an extremely important technology because it offers the potential to reduce the greenhouse gas emissions from new and existing power stations.

Senator MILNE—I note the word ‘potential’, but the liability costs will be borne by the taxpayer. Is that not correct, given that you cannot guarantee permanence or that there will not be leakage?

Dr Brockway—The additional cost for post-combustion capture, separate from sequestration, will be borne by you and I and the community. The community is going to have to accept somewhat higher charges for energy if we want lower greenhouse gas emissions. You have certainly raised an interesting issue for the future regulatory regime for storage and liability of CO₂ but that is not really something that CSIRO is in a position to comment on. In my view, when we are talking about millions of years, the long-term liability for CO₂ is a government regulatory issue.

Senator MILNE—Dr Sandland, what percentage of your funding for energy research is now being dedicated to pre and post capture and geosequestration storage et cetera, and what percentage is going to renewables?

Dr Sandland—Dr Brockway also has that information, I believe.

Dr Brockway—I do not have the percentages with me, but I do have some of the numbers. In actuals for 2005-06, our appropriation investment in low-emission clean coal technology was \$9.1 million. There was also \$4.7 million in external funding. In renewables, it was \$10.5 million of appropriation and \$1.6 million of external funding. There are two interesting points to be made there. One is that CSIRO’s appropriation actuals were greater in renewables than

in clean coal technology, but the total program in low-emission clean coal technology was greater and that was simply because we have managed to attract more external partnerships, which is what you would expect from a well-developed industry—whereas the renewables industry is not. Those are a function of a total appropriation of \$59.3 million and, including externals, of \$84.9 million.

Senator MILNE—Dr Brockway, you also work with the CRC for Coal in Sustainable Development—

Dr Brockway—Yes.

Senator MILNE—which covers solar thermal technology. Unlike carbon capture and storage, solar thermal is now a proven technology—isn't that the case?

Dr Brockway—It is very similar to what I said before: they are proven technologies but we need to carry out a lot more research to reduce the cost. At Newcastle in the last two years we have built the National Solar Energy Centre, which is a high-temperature concentrated solar collector that operates with 200 mirrors—we have not got the 200 installed; I think we have about 180 to 190 mirrors installed at the moment—each of which is four square metres and individually tracks the sun and focuses onto a reactor. Each one of those, by the way is a relatively low-cost collector sitting on the ground. Prior to that, at Lucas Heights the CSIRO had a large dish collector. That is a large structure and the whole structure has to track the sun. That is very expensive technology. The point I am making is that we have gone from expensive technology to what we hope will be a much lower cost technology in order to reduce the cost of solar thermal technologies. Our best estimate at this stage in terms of the cost of energy from a concentrated solar collector is that 70 per cent of it relates to the cost of the array—the collector itself. Having low-cost mirrors, basically with each one of them on the ground and tracking the sun, is a substantially lower cost way of going.

In fact, we hope to expand that technology with an AP6 program. At the moment, we have one tower with 200 mirrors. We hope to, in partnership with others, build a much larger array in Australia to demonstrate the technology and try to reduce the price even further. It is quite an amazing technology. You can get temperatures of over 1,000 degrees in the collector. In fact, on one occasion we put a very thick aluminium plate up there and, using only 15 of our mirrors, burnt a hole right through it in only 90 seconds. It is amazing technology. It is used to react natural gas with water to get syngas. That essentially embeds 26 per cent more energy in the product gas so that, when you burn it, you get lower greenhouse gas emissions. Just as importantly, we can shift that to CO₂ and hydrogen. As we were talking about before, we can separate that out and produce solar hydrogen and have essentially zero emissions if we sequester the CO₂.

Senator MILNE—I want to come back to the concentrated solar technology and the August 2005 report from the CRC that went up last year. It says it is predicted that the cost of concentrated solar will become equal to coal-fired generation when installed capacity was 5,000 megawatts worldwide and that the target date was 2013. Given the huge expansion of concentrated solar in California and Spain, are we on track to achieve around 5,000 megawatts at getting towards the equivalent of the cost of coal-fired power by 2013?

Dr Brockway—No. That was not a CSIRO statement. As is usual with scientific publications, a number of references are made to issues that others have raised. In that report we did talk about the amount of area we would need to meet Australia's demand, if it could be harvested from solar energy paying no attention to cost. The reference to the period of time—seven years or whatever it was—was a straight reference from a group at a conference in 2003 which had predicted that might be possible in America if 5,000 megawatts of solar power were commercially viable—or at least developed. We made reference to that, but that is certainly not CSIRO's statement. CSIRO certainly does not believe solar power will be cost competitive with coal in that sort of time frame at all.

Senator MILNE—Is that statement based on there not being a price on carbon?

Dr Brockway—I cannot answer that. I do not have that information. A group was set up at the conference in America, I think, and it was that group—

Senator MILNE—You just said CSIRO believes that concentrated solar will not be cost competitive with coal. I am asking you: is the basis for that statement that there is no price on carbon? Surely, as the price goes on carbon, it becomes more competitive by the minute.

Dr Brockway—That is certainly true. It is based on current policy settings.

Senator MILNE—I accept what you are saying. What I am saying is that the cost competitiveness of these technologies is entirely dependent on the cost on carbon.

Dr Brockway—The cost competitiveness of these technologies is dependent on very many things. It is dependent on how we reduce the cost of them; the extent to which we can make, for instance, the reactors more effective; and all of those sorts of things. Part of it will be the regulatory regime, the policy regime, in any country. That is one part of it.

Senator MILNE—Clearly Spain and California have demonstrated that policy settings drive investment in renewables. That is the experience here and overseas in relation to that. Just as a final thing, CSIRO is saying that there is no paper on geosequestration that has been withheld for publication for any reason.

Dr Brockway—To the best of my knowledge, that is the case. And we have made extensive inquiries to that effect.

Senator CARR—Could I ask you, Dr Sandland, about the recent publicity concerning the loss of senior staff. Dr Chris Strauss, Dr Colin Ward, Dr Graeme Pearman, Dr Fred Prata, Dr Annabelle Duncan and Dr Tony Schlink are just a few. It would appear that there has been an increase in the rate of attrition amongst senior CSIRO scientists. Is that the case?

Dr Sandland—The examples that you gave are all examples that we would consider essentially on a case-by-case basis. In the case of Dr Colin Ward, for example, his work had naturally come to an end with a triumph—the discovery of the structure of the insulin receptor. It was a time that he was very happy to go out of the organisation, and he continues as a research fellow. In other cases there are different answers. I do not believe—but I will consult my colleague Dr Michael Eyles—that we have anything that suggests that there is that trend. We certainly do not have that information. We have information of some fantastic scientists—we mentioned several of them this morning and I could mention rather more—

who have joined the organisation. But each one of those people has left the organisation essentially under different circumstances and for reasons that were essentially localised.

Senator CARR—When I raised these issues with you, I think, four years ago, you said to me it was essentially the work of a few grumpy ex-scientists and that criticisms concerning CSIRO management issues relating to the retention of world-leading scientists was not really anything to do with the policy settings of CSIRO at the time. Do you still hold the view that the complaints concerning the management on issues relating to the retention of these scientists is a matter of just malcontents?

Dr Sandland—I do not remember the precise statement that I made. I do not know if you have my precise words there.

Senator CARR—No doubt my office would be only too happy to provide them to you.

Dr Sandland—I would kind of like to see them because I certainly do not remember ever using the terminology that it was all just down to a few grumpy malcontents.

Senator CARR—Do you think that is too harsh? I have paraphrased you.

Dr Sandland—I think that I may have said that, in certain instances where work has in fact been terminated because of a change of priorities, it was quite natural for people to feel personally disgruntled about that kind of decision, but, as I said earlier, I think each of these people has left the organisation under different circumstances.

Senator CARR—Has the retention issue been raised with the CSIRO board?

Dr Sandland—I do not recall that precisely being raised with the CSIRO board, but certainly we discuss with the CSIRO board from time to time some of the people who are becoming part of the organisation. Dr Garrett often does that type of thing in his chief executive's report to the board. I believe it is discussed from time to time. Clearly, when there are adverse media reports from time to time they become an interest of the board.

Senator CARR—Was it discussed at the executive level?

Dr Sandland—As I said, each individual is an individual case, so the executive will often consider individual cases or sometimes a subset of the executive will be involved in looking at particular cases to look at the justification. As we said earlier, whenever, for example, a person is leaving the organisation with redundancy being the reason for that, Dr Garrett signs off personally on each and every redundancy in the organisation. So it more or less guarantees a process of very careful examination.

Senator CARR—That is good. So you will have no trouble providing me with a list of the senior research staff who have departed in the last three years and indicating which departed as a result of normal retirement and which have been made redundant or have departed for other reasons. Can you indicate to the committee what the reasons are for people's departure?

Dr Sandland—Very often in the case of a person departing the organisation that is a matter of a private negotiation between the organisation and the individual concerned, and we basically respect the privacy of our officers and would not be happy to provide information about the reasons why individuals left the organisation. I do not believe that would be appropriate.

Senator CARR—I thought you said that Dr Garrett asked for an assessment of the reasons for individuals leaving the organisation.

Dr Sandland—We have an exit interview process, but that process is confidential to the officer leaving the organisation and the officer conducting the exit interview.

Senator CARR—So you are not able to provide the committee with the reasons for people's departure?

Dr Sandland—No. We could certainly provide coarse information which describes redundancy, retirement and resignation, but that is as far as we could go.

Senator CARR—I have got an email here from David Grice. I am sure you have seen it. This is a man who wrote an email to all staff entitled 'The good, the bad, the ugly—29 years at CSIRO'. Are you familiar with that email?

Dr Sandland—I have seen that email, yes. I cannot recall the details of it.

Senator CARR—Just about everyone has seen it, I suspect. Do you have a general comment to make about the document?

Dr Sandland—I must confess that I do not recall the details of the document, so I do not have a comment to make at this point.

Senator CARR—I will remind you what he says:

... the continual uncertainty and job insecurity of recent years have impacted heavily on job satisfaction. With 93% of staff appointments last year on casual or short term appointments ... the opportunity for pursuit of long-term research has declined.

Dr Sandland—We do have figures on the number of term and casual appointments in the organisation, but it is certainly nothing like 93 per cent.

Senator CARR—What is the figure?

Mr Whelan—Do you want the current figure?

Senator CARR—Yes.

Mr Whelan—The breakdown of the current staff in the organisation is that 4,383 of the 6,558 are indefinite, 1,782 are term and 393 are casual.

Senator CARR—That is your total staffing pool. What is the breakdown for the research scientists?

Mr Whelan—I do not have the breakdown by research scientists, but I note that one of the things we have focused on over the last few years, as I said earlier, is maintaining research capability. So what I can say is that the number of research scientists in the organisation is something that has been growing. If I think back to the mid-nineties, in 1995 and 1996 we had about 1,700. Today we have close to 1,800. So, notwithstanding the number of staff changes, we have been growing that part of the organisation.

Senator CARR—Yes, I know the arguments. But I would like to know: of your research scientists, how many are on short-term appointments or are casual?

Mr Whelan—I do not have the breakdown by staff type. I can take that on notice.

Senator CARR—That is the complaint, is it not? I presume that when Dr Grice says that 93 per cent are casuals or on short-term appointments he is referring to the research staff, not the administrative staff.

Dr Sandland—I do not believe that figure is true for research staff, and I doubt the provenance of those data. As Mr Whelan has said, we do not have that particular breakdown, but it is certainly not the practice of the organisation to appoint 93 per cent of its research scientists on a term or casual basis.

Senator CARR—You are a long-term employee yourself. How do you think it would change your relationship if you were on a short-term or casual contract?

Dr Sandland—That is a hypothetical question. I will not go there.

Senator CARR—Dr Grice also says that there is a climate of fear and a reduction of much-needed constructive criticism, which science is supposed to be about. Do you dispute that claim?

Dr Sandland—I have never seen people in the organisation being unwilling to express their criticisms of management at any level or of the nature of the science that is being undertaken. There is always debate in the organisation. From my perspective, I have heard the media reports and I agree that clearly, because Dr Grice has made that statement, particular individuals do in fact have that view. But it is not something that I have observed going across the organisation. I will often be approached by people who will make a comment about a general email that I have sent out; there does not appear to be any fear of telling me—

Senator CARR—He is going, though, is he not? That is the whole point. He is on his way out the door after 29 years.

Dr Sandland—That is correct. But, once again, this is one individual in the organisation. As you are aware, we undertake and will be undertaking a regular measurement of the morale of the people in the organisation. We continue to do that. We are obviously above global norms in all of those areas for science and I agree that individuals are unhappy within the organisation. But, once again, it is on a case-by-case basis, and I am not sure of the particular circumstances that pertained in the case of that individual.

Senator CARR—We referred earlier to the 93 per cent. I have read this again. It actually first hit last year. You may have an aggregate figure. Can you tell me what the figure was for last year for short-term—

Mr Whelan—I do not have that.

Dr Sandland—We just have the aggregate data.

Senator CARR—If you could tell me whether or not that has changed in recent years, it would be helpful. There is also a reference to one divisional chief being taken twice to the Industrial Relations Commission. That was Dr Andrew Johnson, was it not?

Dr Sandland—I am not sure of the chief who was involved in that.

Senator CARR—Are you able to tell me if it is true that a divisional chief has been taken twice to the Industrial Relations Commission?

Dr Sandland—I do not have that data to hand.

Senator CARR—I used that name because that is the name that appeared in the *Canberra Times* on Wednesday, 27 December. I take it that if that were not true, there would have been a statement issued by CSIRO management to say that it was not true?

Dr Sandland—Not necessarily. We do not respond to all claims.

Senator CARR—It is a pretty substantial article. This was Rosslyn Beeby's piece on Wednesday 27 December. Did you respond to that article?

Dr Sandland—I cannot remember whether we responded to that one or not. We certainly have responded to several of those articles.

Senator CARR—You have a pretty active media management, haven't you?

Dr Sandland—We have a small media group.

Senator CARR—It is very active, though.

Mr Whelan—Absolutely. The number of communications from CSIRO in terms of media has grown significantly. In fact, I think the statistics that I have in my papers refer to the fact that media releases are up by about 25 per cent—

Senator CARR—Absolutely!

Mr Whelan—and the favourable rating generally in the media for CSIRO publications I think has gone up by six per cent in the last quarter—

Senator CARR—I would expect nothing less.

Mr Whelan—and unfavourable references to CSIRO had fallen by 30 per cent to two per cent over the last quarter. So, yes, we have a very effective media group.

Senator CARR—So this is an increasingly rare example of bad publicity which would have meant that you would have responded to it, surely.

Dr Sandland—As I said, we have responded to one or two of those articles; I just cannot remember whether that was one that we did respond to.

Senator CARR—Can I ask, in terms of the complaints—

Dr Sandland—I have just got information that that was not one that we responded to.

Senator CARR—Why not?

Dr Sandland—Because it was two days after Christmas, I think.

Senator CARR—I see, so you did not think anyone would read it; was that the proposition?

Dr Sandland—I am not sure that there was anyone around to—

Senator CARR—I see. I will tell the *Canberra Times*, not to publish anything just after Christmas because CSIRO will not read it. Did you read it?

Dr Sandland—I did not read it, because I think I was somewhere else, like in Sydney.

Senator CARR—You have had a chance to have a look at it since then, though.

Dr Sandland—I have seen it, yes.

Senator CARR—And you would be able to refute the claims made?

Dr Sandland—I will not take it on as a generalised thing. If you ask me about any individual claim made in the article I could certainly—

Senator CARR—Well, I have been doing that.

Dr Sandland—You asked me about one and I have told you that I did not know the answer to it.

Senator CARR—Thank you. Let us have a look at the case of Fred Prata. Do you dispute the accuracy of the statement that appeared in *Australasian Science* recently? Did you see that piece?

Dr Sandland—I am not aware of the statement that appeared in *Australasian Science*.

Senator CARR—It says here, ‘Science innovation goes up in smoke.’ It is an article appeared in *Australasian Science*, No. 18. There was some correspondence that preceded it and he says that there were a number of allegations regarding unprofessional behaviour at CSIRO. He says that the imperative to commercialise the thermal imaging camera led CSIRO to ignore getting the science right. And he said that CSIRO mistakenly believed the R&D was now mature and could be taken to market. Was that the case?

Dr Sandland—I will ask Dr Steele to comment on that but CSIRO disputes, 100 per cent, Dr Prata’s claims about the unprofessionalism of CSIRO management.

Senator CARR—You dispute it?

Dr Sandland—We dispute that.

Senator CARR—So I take it that you responded to this article.

Dr Sandland—No. As you are aware, we occasionally have some fairly negative arguments in *Australasian Science* and we have not found it a useful strategy to respond to them.

Senator CARR—So it is a matter of strategy that you do not respond to them.

Dr Sandland—On one occasion I pointed out nine errors of fact in an article that had been published. I sent that to the editor and the editor did not publish it, so I presumed it was not a very useful tactic or strategy to comment on such articles.

Senator CARR—I see. They are very serious claims. What other action have you taken to refute the matters that Dr Prata has raised?

Dr Sandland—I might pass this question to Dr Steele at this stage, because he has been intimately involved in the commercialisation side of G-bIRD.

Dr Steele—Your question went to the issue of whether or not—

Senator CARR—Did you respond to these articles? The article appeared in *Australasian Science*, where Fred Prata makes a series of claims about the integrity of CSIRO management.

Dr Steele—I do not believe a statement has been made in response to the *Australasian Science* article. I was just about to add to an answer to your earlier question which was in

relation to whether or not the research had been completed. The answer to that question is that getting a product out to the market involves both a research and development phase. CSIRO believes that it had conducted the research phase to the point where it was appropriate to get a commercial partner to become involved in the development phase. Clearly CSIRO did not complete the development phase but it had completed the research phase. It attracted a commercial partner to it; the commercial partner has taken a licence to the technology and is working on how to conduct the development phase.

Senator CARR—This is Tenix.

Dr Steele—Correct. They are our exclusive licensed dealer.

Senator CARR—Was Dr Prata reprimanded for expressing concerns about the science of the project? He expressed his concerns to Tenix, didn't he?

Dr Steele—I do not know that I have any evidence to indicate that he was reprimanded by CSIRO.

Senator CARR—Why was he made redundant, then?

Dr Steele—He was made redundant because the project had got to the end of the research phase. I believe that has been on the public record before.

Dr Sandland—Under Senator Siewert's tutelage we answered a number of questions on this.

Senator CARR—Obviously, then, you will be able to quickly answer my concerns as to whether or not he was pressured to sign documents, signing off various US trademark and patent forms, and he refused.

Dr Steele—As we discussed in Senate estimates previously, inventors who are involved in patent applications made by CSIRO are from time to time requested to sign various patent forms for their various jurisdictions. The US patent office is one of those that like to see their formal form signed. The inventors on this patent had signed a normal inventor's assignment form at the time that the provisional patent application was lodged. Subsequently, when it went into the US jurisdictional phase, the US patent form was requested to be signed. There are discussions going on with the inventors in relation to that. And, no, he has not been pressured.

Senator CARR—This is your opportunity to put the view, because you have not put it publicly, have you?

Dr Steele—This was discussed at the last Senate estimates session.

Senator CARR—Is the claim true that inventors receive a \$1 reward payment?

Dr Steele—It is part of the normal process of filling in the forms that there is a nominal payment, yes.

Senator CARR—Of \$1?

Dr Steele—I believe so. It is a formality. I would not take it as being a substantial payment.

Senator CARR—Dr Sandland, what were your bonus payments for last year?

Dr Sandland—In relation to all executives in CSIRO we do not reveal individual bonus payments.

Senator CARR—I do not expect you to, but you can tell me what the aggregate is for the executives, can't you?

Dr Sandland—Yes.

Senator CARR—What was it, on average?

Dr Sandland—I do not have that figure in front of me.

Senator CARR—Try and have a bit of a stab at it. Maybe you have it in your annual report.

Dr Sandland—I will just look at the information on executive remuneration.

Dr Steele—To add to my answer in relation to the \$1, it is not related to their involvement in the inventorship per se. It is not considered an IP reward scheme.

Senator CARR—It certainly would not be considered a reward scheme, would it!

Dr Steele—It is the sort of item that you prefer to put up on your wall—

Senator CARR—Is that right?

Dr Steele—as a copy of the cheque.

Senator CARR—I am sure it is quite inspiring to think that that opportunity exists in CSIRO. Dr Sandland, what were you going to tell me about the bonus figures?

Mr Whelan—Page 175 of the organisation's annual report lists—

Senator CARR—Thank you. What does that figure tell me?

Mr Whelan—It lists the total remuneration of senior executives in CSIRO.

Senator CARR—What is the bonus?

Mr Whelan—It does not separately disaggregate that data. It only has total remuneration.

Senator CARR—So you cannot tell me what the average bonus is for CSIRO executives.

Mr Whelan—No, I cannot.

Dr Sandland—What we can say, though, is that the bonus, as you describe it, was essentially developed as part of an at-risk component of the total remuneration package, which is reported here. But the performance component relates to something like 25 per cent of the nominal salary of the executive, which is at risk. On average, for the executive management council, the success in receiving that amount was of the order of 80 per cent. That amount is 50 per cent decided by how the board rates CSIRO's performance and 50 per cent of it relates to how an individual's performance is rated by their line manager.

Proceedings suspended from 12.40 pm to 1.46 pm

CHAIR—The committee will resume. Senator Carr is questioning CSIRO officers.

Senator CARR—We were talking about Dr Prata. When did you send the cheque to him, Dr Sandland, for his \$1?

Dr Steele—I do not know the answer to that question. It would have been—

Senator CARR—You would be surprised to hear he has not been paid?

Dr Steele—It would have been payable at the time when he signed the original assignment document, which was approximately 2004 for the provisional patent applications.

Senator CARR—I do not think he has been paid yet.

Dr Steele—I do not know whether that is the case.

Senator CARR—You would be surprised to hear that people follow these proceedings. They were concerned to advise me that he has not been paid. So he has not had the opportunity to put his \$1 cheque in a frame. When will he be paid?

Dr Steele—Now that you have brought that to our attention, we will pay him immediately.

Senator CARR—I see. Dr Sandland, as I read it, you are saying 80 per cent of all senior executives get a bonus.

Dr Sandland—No. That is not what I said, Senator. I may have misled you on that.

Senator CARR—How many get a bonus?

Dr Sandland—Basically, the vast majority of our senior executives have an at-risk component of their senior executive remuneration. By ‘at-risk component’, what I mean is that 100 per cent has never been paid to anyone. In fact, the senior executives of the organisation largely created this component of their remuneration by trading off enterprise agreement salary increases for an at-risk component.

Senator CARR—So you are saying that there has not been a year in the last four years that all senior executives have received their full—

Dr Sandland—There has not been a year in the last four years that I am aware of that any senior executive got paid 100 per cent of their at-risk component.

Senator CARR—I see. So what percentage was paid?

Dr Sandland—I think the average figure for last year was 80 per cent. That is decided by both the CSIRO’s board—

Senator CARR—Okay. So 80 per cent of the senior executives is how many? Let us go through this. We have a senior executive team of 11. The chief of division is 18. Is that right?

Dr Sandland—In terms of the figures that were provided in the table—

Mr Whelan—Page 176.

Senator CARR—That is 37 people?

Dr Sandland—It is 37 people in 2006. It was 39 in 2005.

Senator CARR—Okay. So Dr Garrett is on \$159,000. I take it that is the one position there. That is the CEO. There was one position in 1996. The dep.—that is you at \$189,000.

Dr Sandland—It is very difficult to actually make those comparisons because the total remuneration is actually made up of a number of components. One is salary and one is a

performance component, but a whole bunch of other components go in there. For example, there are eligible termination payments when people actually left the system. There are also—

Senator CARR—So these figures are wrong?

Dr Sandland—No. They are exactly as is required of us in terms of our money to be accounted for. What I am saying is that you cannot do a direct correlation.

Senator CARR—As I read it, what you are telling me is that there are 39 people, 80 per cent of whom received the equivalent of a bonus.

Dr Sandland—No. I actually said that the average performance component that was paid out over the total number there was 80 per cent.

Senator CARR—So that is 80 per cent of salary or 80 per cent of people? What does the 80 per cent relate to?

Dr Sandland—The 80 per cent relates to an agreed amount, which is significantly less than the figures that appear here.

Senator CARR—So when these figures say between \$145,000 and \$159,000 for one person, who is that?

Dr Sandland—One, I have no idea and, two, we do not reveal package deals.

Senator CARR—So you do not want to tell me the individuals. I want to know how much of that \$159,999 is bonus, or is it on top of that amount?

Dr Sandland—No. It is definitely not on top of that amount. It is simply not possible to give you a direct attribution of a bonus amount from a figure in this table. It is just not doable.

Senator CARR—I see. So I have it the wrong way around. Dr Garrett is actually on a \$500,000 figure?

Dr Sandland—Once again, we do not give details of individuals' packages.

Senator CARR—So the one person there has to be the CEO, surely.

Dr Sandland—That probably is not an irrational deduction.

Senator CARR—The person on \$489,900 has to be the deputy, doesn't it?

Dr Sandland—That is almost certainly not correct because I believe these were special amounts that related to things like relocation allowances and retirement amounts.

Senator CARR—What I want to get to is this: Dr Prata gets \$1 for his IP rights and the senior executives are getting up to half a million dollars. Is that how it works?

Senator Brandis—Senator Carr, that is a ridiculous proposition because it was made perfectly plain to you from the evidence both before and immediately after lunch that the \$1 is not a payment by way of remuneration or fee or reward. It is merely a nominal legal consideration to support the assignment.

Senator CARR—Senator Brandis, we agree that it is nominal and that in the case of Dr Prata it has not been paid.

Senator Brandis—The fact is, Senator Carr, as you are well aware, the comparison between the remuneration package of a senior executive and a nominal consideration to support a legal technicality is an absurd comparison.

Senator CARR—So does the policy of CSIRO with regard to paying \$1 for the IP rights conform to PIMSEC recommendations on this issue?

Senator Brandis—\$1 is not being paid for the IP rights. There is effectively a voluntary assignment that is made legally binding by a nominal consideration.

Senator CARR—So how much is paid for the IP rights, Dr Sandland, if it is not \$1?

Dr Sandland—The IP that is created by scientists while they are employed by CSIRO belongs to CSIRO. That is clearly understood by all our officers.

Senator CARR—So it is not \$1. How much is it, then?

Dr Sandland—A CSIRO scientist is paid a total remuneration package that depends on their level and their experience. We have very high-level scientists—Federation Fellows, for example—who have remuneration packages that are quite comparable, in many cases more than comparable, with the senior executives of the organisation.

Senator CARR—So how much did Dr Prata receive for his discovery?

Dr Sandland—I think it is clear that Dr Prata has received nothing personally for his discovery.

Senator CARR—Thank you. Is the policy of the payment for IP discoveries under review within CSIRO?

Dr Sandland—For some time we have been looking at a mechanism for IP rewards. We are reviewing where we are with that at the moment. We have not reached a final conclusion on that.

Senator CARR—So how long has it been under review?

Dr Sandland—Two years.

Senator CARR—When do you expect to reach a final decision on that matter?

Dr Sandland—I cannot give you an answer to that at this stage.

Senator CARR—Are you aware of correspondence dated 6 June last year from Dr Prata to Brian Thomas?

Dr Steele—I do not have a copy of it in front of me.

Senator CARR—You are aware of that?

Dr Steele—I am aware that there was email traffic between those two.

Senator CARR—What was the nature of that email?

Dr Steele—Without having it in front of me, I cannot recall that level of detail. But my guess is given the two names that you have mentioned, it would have been in relation to the patent and the invention behind the patent.

Senator CARR—I am going to table that correspondence. It goes to the question of the patent assignment documents required by the US Patent Office. I wonder if you can confirm that two authors refused to sign the assigned forms.

CHAIR—Can I look at the correspondence first?

Senator CARR—I have my copy here, but I need to refer to it. I will have another copy for you in a moment. Dr Bernardo and Dr Prata signed this correspondence. I wonder if you can confirm whether it is true that the two authors of the letter refused to sign the assignment forms to illustrate—

Senator Brandis—Senator Carr, before you ask this gentleman about some correspondence, which he says he does not have before him, wouldn't it be fair to show it to him?

Senator CARR—Sure.

CHAIR—The committee will accept this. But I have not yet agreed to us tabling it.

Senator CARR—That is fine.

Dr Steele—I might be able to answer your question another way around. Those two names do represent the names of the inventors on the patent application.

Senator CARR—Thank you.

Dr Steele—To extend that answer one step further, I believe that we are in discussions with those two people about signing the US Patent Office form of the assignment document. They did sign the assignment document that was the PCT version of it at the time the patent was lodged. I do not know that I would completely agree with your characterisation that they have refused to, but they have expressed concerns about doing so.

Senator CARR—I take it you have a copy of the letter.

Dr Steele—I do now, thanks.

Senator CARR—It states:

As previously indicated to CSIRO managers both verbally and formally in writing on many occasions, starting with an email to Michael Edwards in September 2003, we do not think the statements made in the patent applications are truthful or correct.

Were they right or were they wrong?

Dr Steele—Your question to me I am interpreting to mean was whether they were right or wrong about the statement as to whether or not the IP patent application—

Senator CARR—I can confirm that that statement is in the email. I have not misquoted it?

Dr Steele—No. I am just getting very precise about the question that I am being asked.

Senator CARR—It states:

...we do not think the statements made in the patent applications are truthful or correct.

Dr Steele—That is what they have said in the document.

Senator CARR—Yes. Do you agree with their statement?

Dr Steele—Do I agree that there are questions about whether or not the patent applications are truthful or not? The answer to that question is that I do not know there is any reason to believe that the patent application is untruthful. But let me make it clear that the present process has the two inventors reconciling the version of the US patent application against the version of the provisional patent application and confirming whether they are comfortable or not that the patent application is a true representation of the invention. That is their current status. Just to be clear, my view about that is actually neither here nor there. The important bit to the US Patent Office is whether or not the inventors stand behind the patent application.

Senator CARR—They go on to say:

... we are able to demonstrate that there are numerous errors in the patents which must surely invalidate most, if not all of, the claims.

Do you agree with that?

Dr Steele—I do not know from personal knowledge whether there are errors in the patent application. I repeat that the patent application that has been lodged before the US Patent Office is the one that was authored by these inventors.

Senator CARR—What action has CSIRO taken to satisfy itself of the accuracy or inaccuracy of the comments?

Dr Steele—The first point is that we have asked the inventors to go through the US patent application and confirm whether it is correct or not that it duplicates the provisional patent application. That is the first step. If it is that it does accurately duplicate that, you would expect that it represents the invention as they first applied for it. If it is different, and we do not know that it is different at this point—and the inventors are the people who are doing that checking because it is their statement that is relevant here—we will address that situation when we get to that point. For what it is worth, our external patent attorneys obviously will review those two documents as well.

Senator CARR—So is it the case that Dr Prata has been asked to demonstrate these problems that he explicitly refers to in this long stream of correspondence? It is not just one item I am referring to here.

Dr Steele—I understand that. Your question was whether we asked him to demonstrate the errors.

Senator CARR—Yes.

Dr Steele—No. We actually asked him a different question, which was: does the patent application represent the invention accurately, because that is what the US patent assignment form asks?

Senator CARR—So let me just be clear about this. I will ask the question again. How have you satisfied yourself as to the accuracy of his comments with regard to the errors in the patent application?

Dr Steele—What the US Patent Office is looking for is a statement by the inventors. We have asked the inventors whether the document accurately reflects the invention. That is the critical issue. So we have not ignored the issue. What we have also said to the inventors, by the way, insofar as they have raised issues, is that copies of their correspondence raising

issues will be submitted to the US Patent Office. It is a US Patent Office decision as to whether or not the specification and all of the related information is in good stead. We have told the inventors that we will make sure that is submitted. We expect, by the way, that they may well want to submit that themselves as well to the US Patent Office.

Senator CARR—I think there is a good chance they will do that.

Dr Steele—It is the decision by the US Patent Office as to whether or not the application is in good stead. We have held nothing back in that regard.

Senator CARR—With regard to the claims made in this letter, it states:

... errors resulted from pressure to provide patentable technology without sufficient time allowed to test and validate the science. We were told at the time that we would have the opportunity to correct these errors, but no such opportunity has been given.

What do you say to that charge?

Dr Steele—What I say to that charge is that I was not personally involved. But let me just make one further comment for completeness. At the time when the patent application was lodged, the inventors did actually sign a document assigning the patent application to CSIRO. That would have also contained statements, I believe, as to whether or not they were comfortable with the nature of the specification. It may be that, with the benefit of the hindsight, they were not as comfortable as they were at the time. It may be that at the time they thought that was a piece of mechanics. But that is one salient point in this sequence of events. Does that mean that we are relying solely upon that? No, it clearly does not because we are asking them to check now.

Senator CARR—What concerns me here is that this is a process that has been underway for some time and that on many occasions these concerns were raised with CSIRO managers. Dr Prata observes:

... we remind you of the numerous emails to you and other senior CSIRO managers in which we clearly indicated our dissatisfaction with the patents and suggested, again on many occasions, that the R&D required to make the inventive step had not yet been done.

Dr Steele—This is quoting from the document of 6 June 2006?

Senator CARR—Yes. Is it the case? Were there numerous opportunities for which CSIRO managers passed up the chance to actually correct this situation?

Dr Steele—I believe the correct answer to that question is there was more than one occasion when this matter was discussed. Your question contained an assumption that the matter was dismissed lightly by CSIRO managers. I do not know that that is an accurate statement.

Senator CARR—It continues:

You will have on file numerous unapproved proposals from CSIRO to Tenix that show that the majority of the science was not complete at the time of filing the provisionals and to the best of our knowledge this R&D has not been completed since.

Is that a true and accurate statement?

Dr Steele—It hangs around the interpretation of the science. Let us go back to the very early part of this discussion, when I made the distinction between the research and the development phases. I made the point at the start of the discussion that the development work was not complete. If you take the definition of ‘science’ as starting right back with the original invention all the way through to demonstrating that the product works in producing a product, the statement is correct that the science, as interpreted that way, is not complete. If you take the science to mean the initial invention and then the description of it in a patent application—put aside the question of whether the patent application specification is complete and adequate—it would appear to be the case that it was substantially complete. It is a matter of opinion, therefore, and a matter of interpretation.

Senator CARR—On which a great deal of money hangs.

Dr Steele—That is a separate interesting issue. That hangs on what you think a great deal of money is. There have been previous answers to Senate estimates questions on the potential value of this technology.

Senator CARR—Is it the case that, as the authors of these emails suggest, there were numerous items of correspondence? Are you aware of that?

Dr Steele—I believe that there have been email exchanges and discussions.

Senator CARR—Sorry?

Dr Steele—I believe that there have been email exchanges and discussions around the patent application and the project. In more recent times, there have been a couple with me.

Senator CARR—Are you able to table that correspondence? Given that you are going to send it all off to the US Patent Office, surely you can provide it to the Australian Senate.

Dr Steele—Some of the correspondence relates to the patent and whether the patent is in good standing. It is that correspondence which we will be tabling to the US PTO.

Senator CARR—Did you say you were going to provide the correspondence?

Dr Steele—I actually did not answer the question. I was just contemplating the answer to that question.

Senator CARR—An officer that says he did not answer the question; this is remarkable.

Dr Steele—I do not have complete copies of that here at the moment. If the committee wants to ask for it, I would need to provide it on a later occasion.

Senator CARR—Take it that the committee has asked for the correspondence to be provided.

CHAIR—Yes, you have asked for it.

Senator CARR—You will be surprised to hear that my asking for it does render it a question from the committee.

CHAIR—You will be able to provide it to us?

Dr Steele—Yes. Not immediately.

CHAIR—I understand. Thanks.

Senator CARR—As of yesterday, Dr Prata was saying: ‘CSIRO is still pursuing me to sign off things, which I can’t do. They do not seem to understand that there is unfinished science to do and that it would be dishonest to say otherwise.’ So there is quite clearly a remarkable discrepancy in the position that is being taken here.

Dr Steele—Would you like me to comment on that?

Senator CARR—Yes, I would.

Dr Steele—The most recent correspondence we had with Dr Prata that I am aware of was my letter to him of 31 January. That was in relation to whether or not CSIRO would be prepared to pay for the time involved in his checking the patent applications. I made it clear in that letter that I was open to that and asked for an estimate of the cost of that. It was secondarily related to the sequence in which the inventors were named on the patent and whether or not he should be cited as an inventor on the patent. He has not replied to that correspondence, to me at least. So that is the state of discussions. In that letter, I made it clear that I was open to receiving his response at a time of his convenience.

Senator CARR—Dr Prata speaks of a division—that is, the division where this work was done:

...containing in 1987—

when he commenced—

many world leaders in atmospheric studies, such as are found in meteorology, stratospheric dynamics, radiation cloud physics today, but just about all of those experts have either retired, resigned or been made redundant.

Is that a fair description of that division?

Dr Steele—I do not know whether it is a fair description of that division. What I can tell you is that there were three patent applications that came out of the body of work, one of which is a granted patent. At least one of the inventors on the original granted patent remains in CSIRO’s employment. But I understand that the specific project of work which led to this technology, as we discussed before, came to the end of the natural research phase. The two inventors involved in the two subsequent patent applications of 2004 have left CSIRO.

Senator CARR—Are you able to provide me with a table showing the number of scientists in that division, the loss of staff over that period, or as far back as you can if you cannot do it to 1987, which would demonstrate the level of the position and the reason for the departure?

Dr Sandland—We would certainly be able to provide you with the information back at least several years ago. I think it is also fair to add that, at the time that Dr Prata was writing of, there are a number of people who since that time have got up to retirement age. What we do know is that in terms of the quality of the science that is being undertaken by that division there has not been a diminution.

Senator CARR—I just want to be clear. These claims have been made. What action has CSIRO taken to refute them publicly?

Dr Sandland—The claims have been made obviously in internal email correspondence. Obviously, the granting of the patent is a sensitive issue which we do not particularly want to compromise by having a public debate about the merits or demerits of the conversations. Dr Steele has said a lot of it actually hangs on the question of whether the research has been completed or whether the final development has been completed. The final development has not been completed. It is a matter of interpretation as to where this actually sits in relation to some of the comments that Dr Prata has made.

Senator CARR—I see. You did say before that the argument was put in *Australasian Science*. You do want to respond to *Australasian Science*, so there is actually more to this than just one article or the location of the claims?

Dr Steele—I will get clarification of your question but make one additional point in relation to the preceding question. In a sense, we covered some of the elements of this in the November Senate estimates hearing when Senator Siewert was talking to me about how we handle our relationships with our inventors after they leave CSIRO. Possibly one further comment to make in terms of whether we are getting into a public debate with the inventors, which I made in November, which is that obviously we want to maximise the cooperative arrangement between ourselves and our inventors whether they are employed by CSIRO or they have left CSIRO's employment. Our starting point would not be to make it a public debate with our inventors, whether they are with CSIRO or they have left CSIRO.

Senator CARR—Fair enough. Now I understand. Madam Chair, have you agreed to table this document?

CHAIR—I am happy that it is circulated for the information of the committee, but I do not believe it should be tabled.

Senator CARR—On what grounds? What are your grounds for refusing leave?

CHAIR—There is a degree of information in the communication.

Senator CARR—What particular information?

CHAIR—I am looking particularly at paragraph three and some of the technical information that I believe the writers of the document may not want to be made public.

Senator CARR—I am afraid that is where you are wrong. That is where you are dead wrong.

Senator LIGHTFOOT—Senator Carr, I suggest that you take that up after this session.

Senator CARR—I am taking it up now. I am asking the chair the grounds for refusing leave to table the document. What are you trying to hide?

CHAIR—I am not trying to hide anything. I am uncertain of the status of the document. I am not agreeing to have it tabled. I am happy for it to be circulated for the information of the committee, but I do not agree that we should table it so that it is on the public record.

Senator LIGHTFOOT—I support that decision.

Senator CARR—No doubt you will. You have refused leave to have it tabled?

CHAIR—Yes, I have, yes.

Senator CARR—Dr Sandland, is Mr Prideaux here?

Dr Sandland—Yes. At your request, we asked Dr Prideaux to attend.

Senator CARR—Dr Prideaux, how do you describe the separation of Dr Schlink?

Dr Prideaux—Do you mean Tony's personal position?

Senator CARR—I do not want to know his collar size. I want to know how you describe his removal from the organisation.

Dr Prideaux—Tony was made redundant at the end of last year.

Senator CARR—So he was sacked?

Dr Prideaux—Tony was made redundant.

Senator CARR—I understand that the reason given was that he could not organise sufficient industry funding and, in the case of his research, the change of market was too complex or difficult. Is that the official explanation?

Dr Prideaux—We made the decision to exit the area that Tony was in for a number of reasons: changing science directions and priorities within the division as well as not having a clear path to market for the technology. Obviously, if we undertake research on behalf of industry, we have to be certain that there is a path to the uptake of that technology.

Senator CARR—How would you describe Dr Schlink in terms of international research in his field?

Dr Prideaux—Tony was a good scientist in the field and published a number of papers.

Senator CARR—Not just a good scientist, was he? That is somewhat underrating his international reputation, isn't it?

Dr Prideaux—I do not really feel it is appropriate to discuss Tony as a person in this context.

Senator CARR—But he would be regarded as a world leader in the high-tech end of agricultural science, wouldn't he?

CHAIR—I think that is asking the officer to comment in a personal manner.

Senator CARR—I will describe him that way. Perhaps you can tell me if I am wrong.

CHAIR—That is still asking the officer to comment.

Senator CARR—Is it the case now that officers of CSIRO are required to raise their own research funds?

Dr Sandland—In general—if I may come in there—while officers are employed partly on the basis of funds that come in from industry, we do not have a policy or an expectation, and we would actually regard it as bad practice, that individual scientists be responsible for their individual external revenue. Obviously, a number of scientists contribute significantly to the external revenue raising of the organisation, but we do not have targets at the individual scientist level.

Senator CARR—It was stated, however, that he could not get sufficient industry funding. That is the case, isn't it?

Dr Sandland—With respect to wool research—if I may just also come in there briefly—the situation that CSIRO is in is that we have a major funder of wool research in CSIRO, Australian Wool Innovation Ltd, whose funding to CSIRO for research and development purposes has basically shrunk by a very large amount over the last few years.

Senator CARR—Who made the decision to make Dr Schlink redundant?

Dr Sandland—I will hand that question back to Dr Prideaux.

Senator CARR—I am sure you will.

Dr Prideaux—As previously explained, Geoff Garrett himself signs off on all redundancies, but it is at my recommendation as acting chief of the division.

Senator CARR—Was he given the chance to transfer to Brisbane?

Dr Prideaux—Tony was given the opportunity to look at all redeployment opportunities across CSIRO, which is part of our standard procedures prior to making an officer redundant.

Senator CARR—And that included Brisbane?

Dr Prideaux—And that included Brisbane.

Senator CARR—He will be replaced, won't he?

Dr Prideaux—Tony directly will not be replaced.

Senator CARR—So what will the skills base be for the replacement in terms of the capacity of the organisation?

Dr Prideaux—When we do our science-planning process, we will assess what are the skills needed across the division and what skills are missing within our portfolio. Based on that, we will make decisions on where to appoint new staff.

Senator CARR—I see. There is a quote here that says that the focus of the wool research will shift more to the consumer. They are remarks attributed to you, aren't they, Doctor?

Dr Prideaux—They are attributed to me through one of the press articles, I think.

Senator CARR—What did you mean?

Dr Prideaux—I think the wool industry is moving more to consumer orientated outputs, particularly in competition with synthetics. Within our portfolio, we are trying to move away from wool as a commodity product to wool as a high-end consumer product. That is where we see the future of wool within Australia and internationally.

Senator CARR—Can you tell me what Dr Schlink was working on when he was sacked?

Dr Prideaux—Dr Schlink was working on beef supply chain management when he was made redundant from the organisation.

Senator CARR—Was it shrinkage of wool fabrics?

Dr Prideaux—No. Dr Schlink had exited wool research about two years ago.

Senator CARR—So his research was not dealing with consumer issues?

Dr Prideaux—Not within the wool area.

Senator CARR—What was the area that he was working on in supply chain issues?

Dr Prideaux—When we closed our wool area, Tony was given the freedom to explore areas of research. He was on appropriation funding over that 1½- to two-year period after we exited his area of wool research to look at opportunities matching on-farm management practice and the development of on-farm research to address post-farm issues in beef quality.

Senator CARR—A number of senior agricultural scientists have criticised the decision to sack Dr Schlink. The Dean of Agriculture at the University of Western Australia described management as engaging in weasel word waffle.

Dr Sandland—Senator, we would not presume to criticise the management decisions of the University of Western Australia. We do not take particularly kindly to that kind of comment.

Senator CARR—But you should. You should presume to. A series of comments have been made. I would like to know the response of the management of CSIRO on this matter, particularly to a proposition which says:

There is no question that they're winding up and closing down their wool research ... A decade ago, I could probably have named 30 or 40 wool researchers, now I'd be hard pressed to come up with 2 or 3 names. Wool research in Australia is in crisis.

Is Professor Lindsay wrong when he makes these statements?

Dr Prideaux—I think Professor Lindsay has a different opinion of research within the wool industry in Australia than I would support.

Senator CARR—Given CSIRO's traditional role in this country, I would have thought wool would be pretty central to its activities. Are you saying it is no longer a priority area of research for CSIRO?

Dr Sandland—CSIRO looks at its research priorities through its science investment process. It takes into account a number of factors: relevance, impact and the route to the delivery of impact. It is very clear to us that one of our major funders, Australian Wool Innovation, has decided to focus the attention of its funding on more market related research. This clearly has implications for the route to impact of our research. So CSIRO, in actually making decisions about where to put its resources, will make decisions on the basis of an assessment of the relevance and impact of the work. That does include the ability to engage effectively with the industry. So we ask that question of wool research as we ask it of all the areas under which we work in CSIRO. Sometimes we come up with more positive answers than in other situations. But, in referring to Professor Lindsay's comments, what I would say is that Professor Lindsay clearly is not in possession of all of the facts that we have to take into account in deciding where to place our whole portfolio. Whenever there is a downward shift in the priority given to a particular area of research, there will be stakeholders out there in the community who will regard this as being a bad decision. Unfortunately, it is part of our management responsibility to work within the funding envelope that we have and to get the best outcomes in terms of the relevance and impact of our science from that total investment that we are able to make in science.

Senator CARR—I come back to this point about whether or not Dr Schlink was working in consumer related issues. Who made the decision to move him into beef research?

Dr Prideaux—That was the decision made reflecting the divisional priorities when we exited wool—where the growth area was within the division, where Tony's skills and interests best matched the opportunities and where we saw our growth.

Senator CARR—So it was a management decision, was it?

Dr Prideaux—Yes.

Senator CARR—He was definitely working in consumer oriented wool research—that is, wool shrinkage, dye, fabrics and the like—two years ago, and you made the decision to move him.

Dr Prideaux—Yes.

Senator CARR—Then you sacked him for not being in the area in which he had particular world-leading expertise—isn't that the case?

Dr Prideaux—We made Tony redundant after a process of looking for opportunities where his skills could be used across the organisation.

Senator CARR—Yes, but you think wool shrinkage and wool dyeing is not an area of direct consumer interest to this country?

Dr Prideaux—It was not an area that the industry was prepared to explore for opportunities.

Senator CARR—So private funding could not be organised for that?

Dr Sandland—It is funding from the whole industry that has not been able to be organised for that. Therefore, what signal do we actually read when there funding is not coming forth from the whole industry?

Senator CARR—In the textile industry, which manufacturers did you discuss the question of wool shrinkage with?

Dr Prideaux—I do not have that information with me.

Senator CARR—Did you discuss it only with growers, or did you discuss it with manufacturers?

Dr Prideaux—I do not have the exact details with me on who was involved in those discussions. As you will be aware, funding for the wool industry is funnelled through Australian Wool Innovations, and they were most definitely involved.

Senator CARR—Absolutely. When did you give the agriculture minister a briefing on the question?

CHAIR—On the question—

Senator CARR—On the question of the sacking of Dr Schlink. He has asked for a briefing, hasn't he?

Dr Prideaux—He has.

Senator CARR—I am not asking you to comment on what you have told him; I would like to know when you told him.

Dr Prideaux—He has engaged with the organisation a number of times in that area.

Senator CARR—So there have been a number of briefings?

Dr Prideaux—At least two that I am aware of.

Senator CARR—I take it he has expressed his satisfaction with your explanation?

Dr Prideaux—That is my understanding.

Senator CARR—Who else has sought a briefing from within government?

Dr Prideaux—No-one that I am aware of.

Senator CARR—Just the agriculture minister?

Dr Prideaux—That is true. I think we also prepared a briefing for the science minister.

Senator CARR—The science minister as well. So there was someone else?

Mr Whelan—That is our ministerial portfolio.

Dr Sandland—Obviously as issues arise we prepare briefings for the minister.

Senator CARR—Mr McGauran is pretty easily satisfied. But you are telling me that he is now squared off on this, is he?

Dr Prideaux—I was not the last individual to meet with the minister.

Senator CARR—So who provided the briefing? Not the head of the division?

Mr Whelan—It is my recollection that Dr Robertson provided the briefing. He is the head of our agribusiness group.

Senator CARR—Is there no public good issue in terms of the research that Dr Schlink was undertaking with his research into wool?

Dr Prideaux—I would say there was a component of public good in that area of research but, once again, if we cannot get our technology taken up, in the end there is no public good that flows from research that is adapted or adopted.

Senator CARR—I am just surprised that you require private funding for public good research. I am wondering when that policy decision was made.

Dr Sandland—As I said earlier, we have an amount of funding that comes to us from the federal government. We have an amount of funding that comes to us through our industry partners. That forms the total of our budget. We make decisions on where our research goes. In looking at our routes to impact, we do have a very strong recognition of the public good. But in terms of the total portfolio of work that we do, we will from time to time make decisions to close down particular areas of research. As we have said elsewhere, we could clearly fund more research than what we currently are able to if we were given a larger budget. We work within the budget constraint that we have. We believe that the process we have for focusing on the relevance and impact of the research we do is a good process for determining where that total investment ought to go. A lot of decisions about individuals will be taken locally at the divisional level where the particular expertise lies.

Senator CARR—I will ask you, Dr Prideaux, a broader set of questions that have arisen as a result of this issue. The question of your relationship with farming organisations has been

brought into question in particular. Is it true that you get considerable funding from farming organisations?

Dr Prideaux—By that do you mean the RDCs?

Senator CARR—Yes.

Dr Prideaux—Yes, we do, through the various CRCs.

Senator CARR—Is it true that Dr Schlink was told that his research project looked as if it was too much on farms for current CSIRO priorities?

Dr Prideaux—I am not exactly aware. Tony was provided feedback from a number of people.

Senator CARR—It has been put to me that this incident highlights that long-term research is now out of fashion with your division. Would you like to take this opportunity to refute that?

Dr Prideaux—I think the division has changed its portfolio. We have moved our research in that area to be more strategic in the longer term. My division has a focus on genomic research, taking advantage of the genome sequencing of both the cow and the sheep as well as a number of other production animals that are coming on line. That is where we have an international competitiveness and where we see the future of R&D for our industries going. That is where we have made the strategic decision to invest, to take advantage of the new technologies as they become available and to look for quantum leaps in developments for Australia's agricultural industries.

Senator CARR—So is it the case that, given your very high and hard-won reputation for the development of the wine and cotton industries, there has been a shift away from that type of research and away from public benefit research that does not return dollars?

Mr Whelan—I might make a broader point there. We do a phenomenal amount of research for the cotton industry, the wine industry, the wheat industry and the wool industry. We have terrific mechanisms for transferring technology to those markets. That does not mean there might not be issues on particular projects from time to time, but we are a substantial provider of R&D to the rural sector of Australia. I would have thought that, on balance, our reputation for that is pretty solid.

Dr Sandland—Indeed. When you look at the work that we do with the cotton industry, it is precisely in that high-tech area that we have been able to have a major impact.

Mr Whelan—If I recall correctly, 90 per cent of the cotton crop in Australia is actually based on CSIRO technology. That technology underpins the cotton crop world wide.

Senator CARR—Is Dr Daly here with us today?

Mr Whelan—Dr Joanne Daly?

Senator CARR—Yes.

Mr Whelan—No, she is not.

Senator CARR—Is there someone here from the agribusiness division?

Dr Sandland—We have our group executive for agribusiness here with us, Dr Alastair Robertson.

Mr Whelan—Would you like him to answer some questions?

Senator CARR—Yes, if it is possible for the officer to come to the table. Articles in the *Canberra Times* on 31 January and 3 February referred to comments by Dr Daly saying that CSIRO should be moving away from some of the more incremental farm research. I am wondering whether that includes animal production areas such as wool.

Dr Robertson—Dr Daly was making a general point about the direction of CSIRO's work in agribusiness. I think Dr Prideaux has just argued that we are working in a strategic research area that uses some of the more modern biological sciences that will make transformational changes to agriculture as it moves from a commodity based business into value add. We accept that agriculture within Australia faces significant challenges, but the science base for the types of approaches we are taking through genomics has the opportunity to make major transformational changes to those industries. That was the comment that Dr Daly was making.

Senator CARR—So is it the case that CSIRO is looking at greater involvement in non-production based agriculture?

Dr Robertson—No, not at all. The need to produce materials out of agriculture is as great as it ever was.

Senator CARR—I do not know what other type of agriculture there was. Dr Daly's claim was that:

We're perceived to be very heavily invested in production-based agriculture in CSIRO, and we need to think about where we're going to take that research in future.

I do not know what other form of agriculture there is. Perhaps this is an opportunity to enlighten me.

Dr Robertson—An example of what Dr Daly was referring to is the cotton which we just touched on. The work of CSIRO has been taking the genomics of the cotton plant and making some significant changes to the way that it will perform in terms of disease resistance or production yield. That is the kind of work that we are referring to, so that the crop meets the requirements of the marketplace specifically and can be grown in a high-yield and high-productivity environment.

Senator CARR—Were you involved in the sacking of Dr Schlink?

Dr Robertson—No, I was not.

Senator CARR—Were you involved in the decision to close the research facility at Floreat?

Dr Robertson—No research facility at Floreat was closed.

Senator CARR—None at all?

Dr Robertson—No.

Senator CARR—That is a cotton facility?

Dr Robertson—A wool laboratory.

Senator CARR—It is a wool laboratory, is it?

Dr Robertson—That is what I am reading in the media right now.

Senator CARR—You think it is just wrong?

Dr Robertson—There is no truth to that.

Senator CARR—Thank you very much for that. Who made the decision to spend \$250,000 to recently upgrade the labs used by Dr Schlink?

Dr Robertson—That would have been made in conjunction with the division where the laboratory is likely to have been used and the property group.

Senator CARR—What is happening to that equipment now?

Dr Prideaux—That is the wool laboratory in discussion. My understanding is that it is still being used by our group in Floreat. In Western Australia we hope to integrate our portfolio with other researchers in the area and look at the cohabitation of our laboratories.

Senator CARR—How many other facilities in Western Australia are likely to be rationalised in this process?

Mr Whelan—We do not have any current plans to consolidate further in Western Australia. In fact, we are expanding in Western Australia. I think there are new facilities going in at Waterford for a chemistry precinct with Curtin, which was through PWC either last year or the year before. We have seen a reasonably large expansion of our R&D capability in the west.

Senator CARR—Can we say the same about the Woodstock research station near Townsville? What is happening with that?

Mr Whelan—The Woodstock research station is a field station of 650 acres somewhere out near Townsville. We have been winding down the use of that for research for some time. Our view is that it is now surplus to requirements. We are in the process of taking it to market for sale.

Senator CARR—What is happening with Aspendale?

Mr Whelan—Aspendale in Melbourne is the location of part of our marine and atmospheric research division. It is part of a master plan to consolidate our Victorian operations at our Clayton site. We are doing planning for that, but at this stage I do not have a date at which CSIRO scientists would be relocated from Aspendale to Clayton.

Senator CARR—Mr Whelan, you indicated last November that the number of CSIRO sites had gone from 110 to 57.

Mr Whelan—That is correct.

Senator CARR—Could I get a list of the current CSIRO properties and the sites and some advice on their status? Are you likely to keep them, sell them or propose to sell them?

Mr Whelan—I am happy to do that. I refer you to the questions on notice from last time. I was specifically asked a question by Senator Wong about those properties we planned to sell in the next 12 months. I provided an answer on that.

Senator CARR—That is already on notice?

Mr Whelan—Yes. It was in the last hearing.

Senator CARR—If you go back to 2001, do you have information on the sites that have been sold?

Mr Whelan—Certainly we have details. Property is something we keep pretty good records on.

Senator CARR—Can I get that, please.

Mr Whelan—Just to clarify, you would like to know about properties held in—

Senator CARR—Properties that have been sold by year since 2001.

Mr Whelan—No problems.

Senator CARR—And the number of staff that have been relocated as a consequences.

Mr Whelan—I will do my best.

Senator CARR—Thank you. With regard to the livestock industry staff in Western Australia, I am told that there were 45 to 50 two years ago and that now there are currently about half that number. Is that true?

Dr Prideaux—I do not have the exact figures with me, but there would have been a reduction. I think two years ago we had a significant project that came to its natural end.

Senator CARR—Is there a chance to get a profile on the staff in CSIRO employment in Western Australia, Queensland, South Australia and the Northern Territory since 2001?

Mr Whelan—You mean the whole organisation?

Senator CARR—Yes—the classification and divisions. What I would like to know is whether there is a shift. As you well know, there is complaint that you have your own Brisbane line and a withdrawal from northern Australia. I would like to establish whether or not there is any truth to that in your reallocations.

Mr Whelan—I gave evidence at the last hearing about that absolutely not being the case. CSIRO has more than 900 staff in northern Australia. If you check the *Hansard* from last time, you will find that I provided information to the committee on where they were located.

Senator CARR—Thank you very much. Can I ask you about support services for a project. What is the current status of the program of restructuring the support service in CSIRO.

Mr Whelan—The research support services review had three phases for implementation. The first phase of implementation related to the finance contract administration, commercialisation and legal functions. That took place on schedule in March 2006 followed by the second phase, which involved the implementation of the enterprise model for people and culture and information services. That took place on schedule in September 2006. The third phase, which involves property and services, is on track for implementation as per schedule in March 2007.

Senator CARR—So how many jobs are gone as a result of the program to date?

Mr Whelan—I will just check my brief. I have the figures for how many staff have been made redundant. I am pretty sure that more staff have left not just because of redundancies. So 30 staff have been made redundant basically as a result of the implementation to date. I would not mind double-checking, but I am pretty certain, just to help you with your investigation, that in addition to that there has probably been somewhere in the order of 40 to 45 other staff who were in research support services functions who have either resigned or taken up other positions inside the organisation. In total to date we have approximately 75. That is on par. We currently estimate that approximately 160 full-time equivalents will be lost by the final phase of implementation.

Senator CARR—One hundred and sixty full-time?

Mr Whelan—All up.

Senator CARR—Will there be savings?

Mr Whelan—Yes. The current estimate for savings net of implementation costs for 2006-07 is \$1.2 million. We had not anticipated any savings this year. We thought the implementation costs would offset all savings, but it looks like they are lower than we had originally planned. It is \$9.7 million in 2007-08, \$18.3 million in 2008-09 and \$20.7 million in 2009-10.

Senator CARR—We are talking about over \$50 million?

Mr Whelan—Those figures are cumulative. The \$1.2 million grows to \$9.7 million and then to \$18.3 million.

Senator CARR—What is the aggregate across the four years?

Mr Whelan—I will add it up. It is \$49.9 million.

Senator CARR—\$49 million. Thank you. I thought I said that. Have there been any complaints about staff and about the level of service provided as a result of the program changes?

Mr Whelan—Part of the implementation for the program we put in place involved service level agreements and a survey mechanism to check what staff satisfaction was with that. The most recent data I have indicates that it ranges for the functions. I will give you the range and drop in the detail if you like.

Senator CARR—Thank you.

Mr Whelan—Staff are either satisfied or very satisfied with the commercialisation function—81.5 per cent of staff are either satisfied or very satisfied. It is 70.6 per cent for contract administration, 83.3 per cent for finance and 66.7 per cent for legal. I think that data was from the end of January. I know that information has been provided to each of the functional leaders. They are looking at that and seeing what they can do to lift that performance. Certainly in my experience, given the scale of change that we are undertaking here, they are not bad results. In fact, to some extent they are quite pleasing.

Senator CARR—There is a little project that does concern me about results. It goes to the wholesale removal of SAP business tools and the \$34 million contract entered into with Fujitsu to manage the entire project. Do you recall that?

Mr Whelan—Yes. We have answered questions in the committee before on that.

Senator CARR—Is the agreement with Fujitsu still worth \$34 million or has the contract value now changed?

Mr Whelan—CSIRO entered into a contract with Fujitsu Australia for the supply of a managed service to both deliver the system implementation and associated infrastructure and then to support that system once it was in production over four years. The value of that contract was \$31 million.

Senator CARR—So the total value is \$31 million, not \$34 million?

Mr Whelan—My understanding is it is \$31 million.

Senator CARR—How much has been paid to Fujitsu to this date?

Mr Whelan—I do not have that detail in front of me. What I do know is that the project overall, including CSIRO's own costs, is currently about \$1.7 million under budget. But I am happy to take on notice the breakdown of the payments.

Senator CARR—Thank you. David Toll is the finance general manager. Is that right?

Mr Whelan—He reports to me—yes, that is right.

Senator CARR—He is quoted as saying that CSIRO has tested in house and contracted models for this work and suggests that you are going to receive a cost benefit from outsourcing the work. Is that right?

Mr Whelan—I do not know if that is what Mr Toll said or not.

Senator CARR—Maybe I can find it. I have here an article in the *Australian* dated 10 January.

Mr Whelan—Which year?

Senator CARR—This is 2006. It says this is the first time the organisation:
... has used an external service provider for such a major project.

So you have contracted out all the services. What exactly does this contract involve? What does CSIRO get for its \$31 million?

Mr Whelan—I will provide some more detail on my earlier answer about the components of the contract. I will break it into three components. We get the provision of expertise in terms of the implementation of the software system itself. We also get the provision of infrastructure—servers, routers and the computers on which the actual software will run. We also, once the system is implemented, get the expertise of Fujitsu's people in managing that integrated hardware and software environment to deliver the services that we expect from that system. They are the three components. I do not have the breakdown.

Senator CARR—This is for the finance and human resources functions, project management, customer relations management and that sort of thing?

Mr Whelan—It is for the entire suite of what we would call CSIRO enterprise systems—project management, customer relationship management, finance, HR, assets et cetera. It is not about the provision of systems that support research in the sense of some of the complex

modelling or whatever that scientists do in CSIRO; it is about the administrative functions of the organisation.

Senator CARR—It is administrative support. Mr Toll was quoted as saying that it would be put out to tender and that the organisation had used the internal baseline to test whether it could be outsourced or done in house. Does that still stand? That was your view at the time the contract was let?

Mr Whelan—Absolutely. Again, as we have discussed around procurement arrangements, one of the processes we go through before taking any sort of offering to the marketplace is to ask ourselves whether we have the expertise and capability to undertake a particular function. If we do not, we seek to go to the market and see if the market can provide it.

Senator CARR—Mr Toll was quoted at the time as saying that this would be an off-the-shelf program that would require little customisation. They were your expectations at the time?

Mr Whelan—Yes. Indeed, just to provide the committee with some more information, the system in question is the mySAP software suite provided by SAP, a reasonably large global enterprise systems provider. We signed a separate contract with them for the provision of the software licence over five years with a value of \$6.1 million.

Senator CARR—It was quoted at the time as being a value of \$34 million, but you are saying it is only \$31 million.

Mr Whelan—Based on the brief I have here, it is \$31 million. I am happy to check that.

Senator CARR—Check that for me, please. What is \$3 million here or there these days with these sorts of exercises. Have you got value for money?

Mr Whelan—To date?

Senator CARR—Yes.

Mr Whelan—I think it is the assessment of the project team that we have value for money from the provider. If a different view is formed, I imagine we would take that up with the provider.

Senator CARR—Let us see if that is the case. I have here an email from 16 January this year from Steve Harvey, the deputy chief of exploration and mining, informing staff that the go live date for SAP had been deferred from 8 March 2007 to a date yet to be determined. This system does not work, does it?

Mr Whelan—Steve Harvey, the gentleman you are referring to, was involved in the project team undertaking testing of the system in December. As part of that testing process, we found a number of issues with the software, largely to do with the project aspect of the system. We formed the view that in its current configuration we will not be in a position to go live in March and we are currently looking at a revised implementation date.

Senator CARR—Is that because:

The system does not currently meet the minimum acceptance criteria.

Mr Whelan—Absolutely. That is what the testing process is about. We put it in place to make sure that, before we proceeded to train our staff and implement it, it met our requirements. We formed the view that it did not.

Senator CARR—When will the system be up and running?

Mr Whelan—We are working through the revised implementation date right now. We expect a proposal to come to the executive team by the end of February.

Senator CARR—When the project was announced, it was said that it would be ready by the end of 2006.

Mr Whelan—There are two phases of implementation—one in 2006 and one at the end of 2007.

Senator CARR—Are you going to meet that 2006 date?

Mr Whelan—We are obviously not going to meet that date.

Senator CARR—By the September 2007 date, all other functions were supposed to be met. Do you expect to meet that date?

Mr Whelan—I do not know. We will wait for the report of the committee at the end of February.

Senator CARR—It says in the email that the critical issues have now been identified. What are they?

Mr Whelan—My understanding is that it was to do with the flow of the work in the projects part of the system. One of the challenges of the organisation in terms of our business is that, unlike a number of organisations, we can separate our finance and human resource systems from, if you like, the core business. Projects are the core of CSIRO and they drive where resources go, how resources are accounted for and where people work. It is the integration element of that projects aspect with finance and HR that in the testing process we felt was not satisfactory. It is very important to us that before we proceed to implementation, particularly given this system will affect the vast majority of our staff, it does work to our satisfaction.

Senator CARR—I see. Weren't you telling me before that you expected the March timetables, the third stage, to be met?

Mr Whelan—We are talking about two different projects. You asked me a question about the research support services review, which I have answered. You have now asked me a question about another project, which is the implementation of SAP. Inside CSIRO, to help you interpret the correspondence you have, we call that project the business processes and enabling technology review, the BETR project, and they are two separate projects.

Senator CARR—I see. I can see how I got that confused. When will the BETR project be back on schedule?

Mr Whelan—The answer I just gave you was that we are awaiting a report from the project team. We expect to look at that in the executive at the end of February.

Senator CARR—How many extra staff have you had to put on to this project now?

Mr Whelan—I do not know that CSIRO has itself put on any extra staff. Coming back to the contract we were discussing earlier, part of the provision of that contract is for the supplier, Fujitsu, to provide the expertise. They have a substantial number of people in our buildings at the moment and that is why we are paying them the money that we are paying them.

Senator CARR—What other projects do you expect will be able to be outsourced as a result of this example?

Mr Whelan—I am not aware of any other projects off the top of my head related to this project that would be subject to outsourcing.

Senator CARR—Can you show me where in your response to the Murray amendment this project was placed? Is it included in the information? Can you show me where, in terms of CSIRO's response to the Murray amendment, in the information recently provided that I will find this project? This is the Senate audit of the departmental and agency contract for calendar year 2005 compliance. Is that there?

Mr Whelan—I am not sure what you are referring to.

Senator CARR—There is a provision of the Senate resolutions where you are required to provide information on all contracts that the agency has. Was this project on that list?

Mr Whelan—I am not sure. To the best of my knowledge, we comply with Senate requirements, free trade requirements and department of finance requirements to publish purchasing data. I would be surprised if it was not if we are required to. I am happy to take it on notice.

Senator CARR—Can you take that on notice for me and show me on the webpage where I will find this? Could I have a copy of the text that you have posted on the website on the date that you indicated the particular compliance?

Mr Whelan—As I said, I am happy to take the issue on notice.

Senator CARR—I turn to the recently announced initiative on water. CSIRO has had a number of officers seconded to the Prime Minister's department, haven't they?

Dr Sandland—We have had one officer seconded to the Prime Minister's department.

Senator CARR—To the department or to the Prime Minister's office?

Dr Sandland—I had the officer who is seconded. It was to the department.

Senator CARR—To the department?

Dr Sandland—Yes.

Senator CARR—Located in the Prime Minister's office?

Dr Sandland—I am not aware of the precise details of the location.

Senator CARR—How much money did CSIRO get out of that water package?

Dr Sandland—As you are aware, there was no money that was explicitly earmarked for CSIRO in the package per se.

Senator CARR—When was the officer seconded to the Prime Minister's office to work on this project?

Dr Sandland—Late last year until fairly recently.

Senator CARR—Do you have a date the secondment was effective?

Dr Sandland—I have the officer here. It is Dr Rob Vertessy.

Dr Vertessy—I cannot remember the precise date, but it was in late October. It took effect until two weeks ago.

Dr Sandland—You were working on the water announcement, were you?

Dr Vertessy—That is correct, yes. I was seconded into the Office of Water Resources in the Department of the Prime Minister and Cabinet.

Senator CARR—And you were not working in the Prime Minister's office, then?

Dr Vertessy—No, I was not.

Senator CARR—Is it the case that the announcement assumed CSIRO's projects would initially contribute to the national plan?

Dr Vertessy—No, not exactly. Let me make reference to the existence of the project known as the Murray-Darling Basin water assessment project. That is a piece of work that was commissioned by the Prime Minister and first ministers who met at the water summit on 7 November 2006. This was a commissioning which predated the development per se of the National Plan for Water Security, which you are aware was announced by the Prime Minister just prior to Australia Day. So the first project, the Murray-Darling Basin water assessment project, was commissioned by the first ministers and is administered through the National Water Commission as a commissioned piece of research. Our organisation is the chief contractor for that, though there are other organisations involved in the execution of the research.

Senator CARR—So your original secondment was on a different project?

Dr Vertessy—No. My original secondment was to go into the Office of Water Resources to contract knowledge on water information.

Senator CARR—For the announcement that was recently made by the Prime Minister?

Dr Vertessy—No. It was not put that way at all.

Senator CARR—What was the purpose of your secondment, then? To what project were you seconded?

Dr Vertessy—My secondment was to go into the department and to provide perspectives and information on water information and the state of water information in Australia.

Senator CARR—So the water security plan came later?

Dr Vertessy—Correct.

Senator CARR—And on what date did you start working on that project?

Dr Vertessy—I do not believe it is appropriate for me to be talking about the work that I was doing within the Department of the Prime Minister and Cabinet.

Senator CARR—I appreciate that. I probably pushed you a bit further than you would prefer to go. Was it your expectation that there would be any funding flowing from this announcement?

Dr Vertessy—No.

Senator CARR—What is your normal substantive position?

Dr Vertessy—I am the chief of CSIRO Land and Water.

CHAIR—Senator Carr, I do not wish to hurry you at all, but the Australian Institute of Marine Science officers have to fly out at 4.30 pm and I am wondering how long you will take.

Senator CARR—I am intending to finish this section fairly quickly. Thank you very much, Doctor.

Dr Vertessy—You are welcome.

Senator CARR—I will put the rest on notice to you, given the encouragement of the chair.

CHAIR—Senator Siewert and Senator Allison still have questions for CSIRO as well.

Senator CARR—I will turn to one other matter, and that is the weeds CRC. Dr Sandland, you are a partner in the weeds CRC?

Dr Sandland—I have to consult my brief on that.

Senator CARR—Is it the case that CSIRO opposed the defunding of the weeds CRC?

Dr Steele—Opposed the refunding?

Senator CARR—The defunding.

Dr Steele—CSIRO was an active participant in the rebid for the funding for the CRC. The rebid was unsuccessful.

Senator CARR—Yes. And you proposed that funding be redirected to defeating the weed menace. Is that the case?

Dr Steele—Given that set of circumstances, which is to CSIRO's disappointment, it is the case that we think an alternative might be to try to get that work further funded through the Defeating the Weed Menace Program run by Land and Water Australia.

Senator CARR—I see. Are you considering participating in an Australian Centre for Weed Research?

Dr Steele—The brief does not give me information on that, so I will have to take that question on notice.

Senator CARR—Thank you. While you are there, can you give me some advice as to CSIRO's expressed view on the preferred structure of such a centre?

Dr Steele—I am going to give you a piece of general advice. In the ordinary course of events, we imagine that the correct structure to use for most collaborative arrangements would be an unincorporated collaborative joint venture arrangement.

Senator CARR—So are you concerned about the proposed structure for this new centre?

Dr Steele—When people propose incorporated structures, we usually have a careful look at the governance arrangements around them to make sure that they are appropriate. It is fair to say that our position is one which is considered and often can be described as firm but not necessarily doctrinaire.

Senator CARR—Is it proposed that CSIRO host this centre?

Dr Steele—I do not know the answer to that question.

Senator CARR—I turn to the automotive CRC. What is the situation with CSIRO's access to any IP produced by the CRC for automotive?

Dr Steele—That takes me a little way back. That is an incorporated CRC. The intellectual property is owned by the company, which is the incorporated structure of the CRC. That company has responsibility for the commercialisation of that intellectual property. When CSIRO enters into incorporated CRCs, particularly those that came out of round nine, as I believe that one did, we ordinarily look to have research rights at least available to CSIRO for the intellectual property, although it has usually been the case that the commercialisation rights, as opposed to the research rights, are with the company.

Senator CARR—I am conscious that time is running away from us. Are you responsible for the national collections that CSIRO currently houses? Who is the officer responsible for the national collections?

Mr Whelan—There is no officer responsible for the national collections. They are housed in a number of divisions. We have three gazetted collections and we have about eight others that we describe as national collections—there are about 11 all up. The gazetted ones, as I recall, are insects, wildlife and fish.

Senator CARR—Is fish in Hobart?

Mr Whelan—Yes.

Senator CARR—Is the proposal to dispose of any of those collections?

Mr Whelan—Not to my knowledge.

Senator CARR—There has been no discussion about that?

Mr Whelan—It is certainly not as a matter of strategy development in CSIRO. In fact, that infrastructure is something that is critical to our research. We put a great deal of effort into making sure we maintain it and make it available to people.

Senator CARR—I will come back to that when I find my relevant note.

Senator SIEWERT—I want to go to water first. I have a series of questions. Fortunately, some of mine have been covered by Senator Carr, so I hopefully will not take as long as I would have. I would like to know how the Australian Water Resources Information System and the Water Resources Observation Network fits in with the money that has been allocated to the Bureau of Meteorology in terms the new system that they are going to be having for monitoring, stream gauges et cetera. I would like to know how these three systems will dovetail together. I thought the Water Resources Observation Network was more than a virtual network. Is that correct?

Dr Vertessy—Maybe I can walk you through and make sense of all this. First of all, I would like to define the Water Resources Observation Network, referred to as the WRON. It was a vision put forward by CSIRO just over two years ago as a way forward for unifying Australia's water information assets, but it is in essence a research and development program resident within CSIRO. It is not an operational system per se. CSIRO in its wisdom has allocated very significant resources to that under the Water for a Healthy Country flagship. That work has now been underway fully funded for a year and is proceeding forward in time. The elements of that are really conducting research and development everywhere from sensor development and sensor network design all the way through to hydrological prediction—predicting what the state of our water resources will be like in the future—as well as data reporting, water data analysis and making disparate water information systems in different state jurisdictions interoperable such that we can get a scan of the total water scene, I suppose, across the country. It has been a fraught problem in the past in water resources management. That work continues apace.

Scientists in the WRON theme have been very active in working with the National Water Commission to conceptualise a discrete product, known as the Australian Water Resources Information System, also referred to as AWRIS. In essence, that is a new way of collating information and making annual water resource assessments akin to the type which has just been executed last year under Australian Water Resources 2005. It is work done in 2006 reporting on the status of the water resources. The reason for that is that the exercise of doing a national water resources assessment previously has been very clumsy. By introducing some smart technology and data management, data collation and analysis, we believe we can do a much better job. So the National Water Commission, in their wisdom, have sought to sponsor the development of that discrete system.

Now we come to the new proposed water information function within the Bureau of Meteorology. That is a different thing again. For the first time, that is a proposed national agency function concerned with the assessment of Australia's water resources. It will require various technologies to execute that task, including technologies of the kind that CSIRO is developing in the WRON theme. Our hope is that there will be some collaboration between the Bureau of Meteorology, who are responsible for implementing the new system, and CSIRO. It would be highly likely too that they would employ the AWRIS system as conceptualised thus far by the National Water Commission and CSIRO.

Senator SIEWERT—I suppose I was quite surprised—I may be venturing into territory that is inappropriate; I am sure I will be told when I do—that the Bureau of Meteorology got the money rather than CSIRO or another body that actually has more history in water resources. I know the bureau deals with water, but it is usually the stuff that is coming out of the sky, not the stuff that is already down here. I was quite surprised when that decision was made. I could not get a satisfactory answer from the Bureau of Meteorology last night so I thought I would ask you as well.

Dr Vertessy—I am fine helping you with that. First of all, the Bureau of Meteorology do have an involvement in hydrology already through the execution of the flood warning service function that they fulfil and have been fulfilling for some time. They have also had a kind of a niche water resource assessment function in the role that they play with the World

Meteorological Organisation. I think they advise on the status of Australia's water resources through that. It is very much new terrain for them to take on this new function. If you are asking about the wisdom or otherwise of it being embedded there versus CSIRO, my answer would be that CSIRO is not an operational agency. It conducts research and development to produce the necessary technologies, but it is not appropriate for it to have in the long run that operational responsibility, which would be ongoing and which in the fullness of time should become a rather routine activity and not an R&D one. Without question, in the first few years when the system is set up, there will be a lot of R&D required. It is appropriate that CSIRO would be engaged in that process. Once again, I say my hope is that through the WRON theme we will be able to play that role and assist the bureau.

Senator SIEWERT—You say you hope. Is there a danger that the wheel will be reinvented if the current system—I know a lot of effort has gone into WRON to start pulling that together—is not used? From what I understand from briefings, people are starting to sing from the same song sheet et cetera under WRON.

Dr Vertessy—What I can say is that the Bureau of Meteorology have been active and positive supporters of the WRON vision. We have very good relationships between the bureau and CSIRO. That gives me some degree of comfort that I think we are on the same page in terms of the way we are looking at the world and the requirements. But it is not for me to say that there is any guarantee that we will go in a particular direction. That will ultimately be for the bureau to decide.

Senator SIEWERT—The bureau will decide? What about the new commission or the new water office? Will they have an influence in helping make that decision?

Dr Vertessy—I cannot comment on that.

Senator SIEWERT—Who do I ask about that?

Dr Vertessy—I would have thought the first point of call would be probably the Bureau of Meteorology, but I would be guessing also the new department.

Senator SIEWERT—Thank you.

Dr Vertessy—You are welcome.

Senator SIEWERT—Dr Steele, I could not possibly let estimates go past without asking you a question about G-bIRD. We have already had a discussion about it today. What I want to know specifically is where we are up to with the US patent.

Dr Steele—The US patent application is continuing. The next step would be in parallel with that process going on submission of the inventors' signatures or some other process to satisfy the US patent office.

Senator SIEWERT—Weren't we at that stage last November?

Dr Steele—We were.

Senator SIEWERT—So there has been no progress between November and now?

Dr Steele—There has been an exchange of correspondence with the inventors.

Senator SIEWERT—The letter that you were talking about before?

Dr Steele—Yes.

Senator SIEWERT—Okay. But there has been no progress from the US?

Dr Steele—No.

Senator SIEWERT—Is there ongoing research at the moment? I understand there is ongoing research. Is it related to what is being applied for the patent, or is it taking it beyond?

Dr Steele—I am not aware that there is any ongoing research going on in CSIRO about it. Tenix are looking at the way in which to apply the technology. My understanding, from our discussions with them, which I was not directly involved in but I have heard a report on, was they were thinking about the best way of using the technology. So they are thinking about the specific product applications.

Senator SIEWERT—So it is now how we use this commercially?

Dr Steele—Correct, what is the best way to get this technology into the marketplace, where is the market demand, what does it look like and how would we use it.

Senator SIEWERT—That is separate to the patent, obviously.

Dr Steele—That is separate but related to the extent that they need the patent for commercial comfort on the use of the technology.

Senator SIEWERT—I appreciate that. I will come back next estimates and ask where it is up to.

Dr Steele—I look forward to it.

Senator SIEWERT—I will quickly follow up on wool research. Senator Carr asked most of the questions that I was going to ask. My understanding from the answers that you gave is that CSIRO has now moved from actual product work to genome work. Is that correct?

Dr Prideaux—Our wool portfolio is actually quite broad. We try to pick up all the key issues for the wool industry. It is fair to say that we probably have increased our investment in genomic research above the other increases. We have also picked up other industry issues. At the moment, mulesing is a big issue for the wool industry, so we have put resources into mulesing. As everybody would be aware, 2010 is the date we are aiming at to phase out mulesing. So you can imagine there is a demand for research in that space. So our wool portfolio, as I say, is quite diverse. We have increased our efforts in genomics because we believe we have a competitive advantage there that is world class and we are world leaders. We are really addressing some of the issues. We have traditionally picked up with what may have been considered the 'old' sort of science, for want of a better word, using genomics approaches.

I will give an example of a division where we are using genomics technology to bring it back to what people may consider on-farm issues. The appearance of black lambs has been a major issue for the wool industry for some time. Black wool amongst white wool is a real issue for the industry. We have used a lot of traditional breeding approaches previously to try to breed out black lambs from amongst white wool and without a lot of success. We did know there was a genetic correlation. Recently using the genome sequences that have become available we have been able to tease out what gives black colour to wool. Now we are very

far down the track of producing a genetic marking for black wool. People think of genetics as either a yes or no, but it is far more complicated than that. Through the genome we have been able to tease that out. We will be able to support breeding programs for the removal of black lambs. So we are using a genomics approach for very on-farm issues.

Senator SIEWERT—While I have thought of it—I want to come back to some more research in a minute—are you saying that the lab in Perth is not closing down?

Dr Prideaux—That is right.

Senator SIEWERT—So all the reports on that were wrong. Are you phasing out particular programs, though, from Perth?

Dr Prideaux—In Perth we currently have two major initiatives. We have our livestock in the environment initiative stream, which deals with the issues that are very WA focused. They have a WA focus regarding salinity and using livestock, particularly sheep, to graze on saline lands to address that environmental issue.

Senator SIEWERT—That is part of the CRC, one presumes.

Dr Prideaux—It is part of the CRC and will be in the ongoing CRC as well. The other major area we have in WA is pastures from space, where we are using satellite technology to measure the amount of food on offer in particular for grazing animals, such as sheep in particular, in WA. They are our main two focuses in that area. They are there because of collaborations with other organisations. What we do have are a few orphaned projects to address these issues that we are trying to find critical mass through either collaboration or merging. Our real focus is on those two areas of Perth at the moment.

Senator SIEWERT—So they are ongoing. What are the orphaned projects? Are they ones you were running before and are now winding down, or have the programs they were a part of changed?

Dr Prideaux—It is a mixture of those circumstances. They are about meat quality and nutrition, to generalise. Through the new sheep CRC we got funding prior to Christmas. We can actually link some of those orphaned projects into the state department in WA, which has a lot of strength in that area.

Senator SIEWERT—Did you say sheep CRC?

Dr Prideaux—Yes.

Senator SIEWERT—I was so focused on the fact that the new version of the salinity CRC got up, I missed the sheep CRC. Can you provide some details of the sheep CRC? Where is it located? Who are the collaborators?

Dr Prideaux—Yes. It is easier to do that on notice.

Senator SIEWERT—Thank you. Where is it based out of?

Dr Prideaux—Armidale.

Senator SIEWERT—We have sheep country in WA too, you know.

Dr Prideaux—Perth is leading one of the programs. They have held them there. They have a key role in one of the programs in the CRC.

Dr Steele—The DEST website has the announcements of the new CRCs on there. There will be a fact sheet on there as well.

Senator SIEWERT—Do not worry about it, then. I will go to the website, if it has the detail about where it is located and all that sort of stuff. You were saying that you were hoping some of those projects will be picked up by the sheep CRC.

Dr Prideaux—Some will be funded by the CRC. It is not an issue of funding. It is how we build a critical mass so there is a like group of scientists of a significant size so that they have the intellectual stimulation and the ability to kick around ideas. The CRC obviously provides that in one form, but we are looking to take that to the next level.

Senator SIEWERT—Can you provide a list of the orphaned projects. I feel terrible using the term ‘orphaned projects’. Have you also got a list of the projects that you have faded out from Western Australia?

Dr Prideaux—I can take that on notice.

Senator SIEWERT—That would be appreciated. This will be my last question. How are you factoring in climate change into agricultural research? I am presuming you are familiar with work that Ross Kingwell has done in the agricultural department in Western Australia. He has said that, in particular in Western Australia, agriculture has adapted but it is now getting to the point where it can adapt no more. Basically, the tenor of his argument is that we need more research.

Dr Prideaux—I will hand over to Alastair, who heads up agribusiness, because obviously it has implications far wider than just livestock.

Dr Robertson—As an organisation, we are clearly involved in the agribusiness side and obviously in climate. Our work in climate has been strongly around, I suppose, climate prediction and mediating the changes that occur through CO₂. Now the opportunity comes to look at climate adaptation. This becomes an issue which we believe is very important. We are discussing, significantly, internally in our strategy going forward how we deal with that. We have work that is ongoing on sustainable agriculture. A lot of that work can come together to interface with climate so that we are dealing with the adaptation. Again, genomics technology comes into that game too because, to be able to adapt to climate, the farming systems need to adapt. But so do crops, specifically around drought resistant crops. Disease will shift. Vectors will change. So our work around disease resistance again becomes very important. So that is an area where we can really start to pull and integrate a lot of what has been separate, in a sense, in terms of farming systems and climate over the years. At the same time we sit as observers and participants and voting members of AWA in Western Australia.

Again, climate adaptation is an area that the department of agriculture in Western Australia is interested in as well as the partners of the institute that developed with Curtin, the University of Western Australia and Murdoch. This is an opportunity for us to integrate now. Western Australia has a particular issue that we can use possibly as an exemplar for dealing with climate adaptation. So it is a good way now for CSIRO to integrate with the wider research community in Western Australia. Those discussions are going on now.

Senator SIEWERT—So those discussions are going on?

Dr Robertson—They are beginning. They have been for about the last three or four months.

Senator SIEWERT—At the next estimates I will ask you for some progress. Thanks.

CHAIR—I understand that Senator Milne has just one question?

Senator MILNE—I understand that Senator Allison has probably been waiting quite a while.

CHAIR—You ask yours and then we will move to Senator Allison.

Senator MILNE—Okay. This morning I was asking about reports and so on. Can you tell me whether the study called ‘Assessment of the aqua-ammonia process as an option for CO₂ capture from coal fired power plants’ has been released and, if so, where I can access the document?

Dr Sandland—I will ask Dr Brockway to answer that.

Senator MILNE—It is a paper by N Dave, T Do and GJ Duffy called ‘Assessment of the aqua ammonia process as an option for CO₂ capture from coal fired power plants’. I understand it was to be released some time between 2006 and 2007. I just want to know if it has been released and if it has not, why not. If it has, can I have a copy?

Dr Brockway—I am not familiar with that specific report. I will have to take it on notice to find out what its status is. I am not sure whether it was done for one of the CRCs. It could very well have been, so it may be going through their process of review. But I will find out the information for you and advise accordingly.

Senator MILNE—Do those scientists work with the CSIRO?

Dr Brockway—Dr Duffy does, yes.

Senator MILNE—This report was to be released some time last year or this year. I asked this morning about any reports that were in the offing and had been finished but not released. You have no knowledge of this one?

Dr Brockway—I have no knowledge of that one specifically. What happens particularly with the CRC for Coal in Sustainable Development is that they have a very comprehensive peer review process whereby research partners, such as CSIRO or universities, provide reports in draft form to the CRC. The CRC then forwards those to a number of industry representatives and industry monitors, who provide comment on them. Those comments are then addressed by the authors. When the CRC is satisfied that all the processes have been pursued, the reports are then released. Or they may not be. In fact, some CRC reports are maintained for the CRC partners alone.

Senator MILNE—So it is part of an arrangement where public funding is provided that some of the research is kept private if it does not suit the commercial partners?

Dr Brockway—I am not sure that that has happened in many cases, but it is a possibility under the CRC.

Senator MILNE—So we pay for public interest research that, if it does not suit the commercial interest, is kept secret?

Dr Brockway—CSIRO contributes to a number of CRCs, as do a number of industry parties. There are different arrangements. I think there have been about 100 CRCs. They have all had slightly different arrangements, or the vast majority have, so I do not think that is necessarily unusual.

Senator MILNE—So we have an arrangement with a CRC that is partnered with the coal industry that essentially says that, if the research comes out that does not suit the coal industry line, it may not be released?

Dr Brockway—No, that is not, I guess, a fair way of putting it. There are some things that CRCs do with funding from parties where those parties rely on that information where they have paid for it. But in general the information is released. I will have to check with this report what its status is.

Senator MILNE—Can you explain to me what you know about the aqua ammonia process and the economics of it.

Dr Brockway—I do not know very much about it at all. It is not an area of my expertise.

Senator ALLISON—Dr Robertson, I was surprised at your answer a moment ago about sustainable farming. You made no mention of soil and the current status of soil and how we might improve its carbon content, for instance.

Dr Robertson—I was not making a comment about sustainable agriculture specifically. I was making a comment about climate adaptation, where there are a number of elements that are important in terms of agriculture. I mentioned some.

Senator ALLISON—One of those is not soil?

Dr Robertson—No. I just did not mention it. The whole area of soil—the biodiversity associated with soil and the nutrient recycling around soil—is all important and have to be looked at as we put together a program and we start to contemplate how that program might work.

Senator ALLISON—So what work has been done thus far?

Dr Robertson—On soil?

Senator ALLISON—On soil.

Dr Robertson—I am sorry, I really do not have that information. But Rob Vertessy from CSIRO Land and Water probably would.

Dr Vertessy—A large part of soil research in CSIRO is undertaken by my division, CSIRO Land and Water. We are the home for several senior and internationally respected soil scientists. Our scientists have been heavily involved with other government agencies in the provision of the Australian Soil Resources Information System. We also undertake research with industry partners on the carbon status of Australian soils, working with the Australian Greenhouse Office. We maintain a national soils archive here in Canberra. It is not a gazetted national collection per se but is still a very valuable resource to the public and the scientific community. We undertake quite a lot of research on the hydraulic properties of soils and their salience to catchment management. Understanding their permeability, their porosity et cetera

is a critical knowledge requirement if one is doing water resources management, so we undertake quite a bit of that work as well.

Senator ALLISON—Of the soils resources information that you provide, how much information is there about retaining carbon in the soil? What sort of work is being done on how you do that? I understand why it is necessary, but what progress have we made? Our emissions from soil are still very high and our carbon content, as I understand it, and humus content in our agricultural soil continue to decline. Is that a fair statement?

Dr Vertessy—A decline in organic status in Australian soils has been a problem.

Senator ALLISON—That is what humus is, isn't it?

Dr Vertessy—Yes. I am not an authority in the area, so I hesitate to comment on that. What I can say, though, is that we do have scientists engaged who are looking at carbon status in Australian soils in the context of our National Carbon Accounting System.

Senator ALLISON—So this information to farmers—presumably that is who it is for—does not include advice as to how to increase the humus content of soil?

Dr Vertessy—There has also been farming systems research in the division that has been giving advice to farmers on maintaining and increasing organic content in soils.

Senator ALLISON—I am not sure if it is your section, but I understand there is a section within CSIRO that in fact had a pilot program underway in the Hunter Valley and in parts of Victoria. Do you know anything about that?

Dr Vertessy—No, I am afraid not.

Senator ALLISON—Does anybody know anything about that?

Mr Whelan—We will have to take it on notice.

Senator ALLISON—Is there a plant division?

Mr Whelan—There is a plant industry division.

Senator ALLISON—Are they represented here?

Mr Whelan—No, they are not.

Senator ALLISON—Why is that?

Mr Whelan—We have 21 divisions. They do not all come.

Senator ALLISON—I should have asked the question. Getting back to the work that you are doing, is there work being done on, for instance, chemical fertilisers and pesticides and the implication of their use in carbon loss?

Dr Vertessy—I am not familiar with any work relating pesticides to carbon status in soils. It may be going on, but it does not come to mind.

Senator ALLISON—It does not sound like it is a very high priority in the organisation. Would that be fair to say?

Dr Vertessy—We certainly undertake quite a lot of work on contaminants in the environment—the presence of them and the pathways of things like pesticides. But I am not

aware of anything relating pesticide content with carbon content in soils. That is not to say that something is not going on; I am just not familiar with it.

Senator ALLISON—How are we going on controlling phosphorus flows, for instance, into waterways? Is the quantity reducing or increasing? What is the status?

Dr Vertessy—We do undertake a lot of work on nutrient balances in landscapes, principally looking at the extent of phosphorus and nitrogen budgets in the landscape. These are actually very important in understanding aquatic ecosystem function. The increase in nitrogen in the landscape is a global problem. This is mainly through the increase in the use of nitrogenous fertilisers. It has been contributing to ecosystem damage and to very serious problems of eutrophication, or algae outbreaks in water supply systems. We do undertake quite an amount of work on that. Probably it is fair to say that historically most of our work has centred on phosphorus and much less on nitrogen. We have developed some very novel technologies for mitigating the effect of the phosphorus in waterways. In fact, we have commercialised some technology known as Phoslock, which is now—

Senator ALLISON—Is that another chemical?

Dr Vertessy—No. It is not a chemical. It is a special type of clay which binds the phosphorus to the clay and allows that to settle out into the sediments and to take it out of the water column and therefore not participate in the chemical balance of the water column. It has been shown to effectively reduce algae outbreaks. So it is a very benign treatment that is most efficacious.

Senator ALLISON—It is my understanding that quite a number of countries, particularly in Europe—I think Germany and France are in this category—are moving to more organic processes. If they are not going entirely organic, they are at least moving in that direction. We all know about tillage, stubble and so forth here, but progress in Australia seems to be a long way behind progress in some of these European countries. Can you explain why that is?

Dr Vertessy—I cannot comment on whether we are behind other countries. What I can say is that there is significant interest, and there has been a fair amount of supporting research, to assist farmers to reduce the amount of fertiliser application through so-called precision farming concepts—to get by with the bare minimum and to be able to achieve the fertilisation effect without harming the environment. There have been quite rigorous attempts in the country to work out ways to do that. It is important, though, to appreciate that our soils are quite nutrient deficient so the fertilisation of them is a very important part of getting the production systems working. I cannot comment on the efficacy of natural or organic approaches, but I think we are making good inroads in reducing the volume of application required to achieve particular production levels.

Senator ALLISON—I put it to you, as others have today, that CSIRO's focus now seems to be much more on GM, genomics, as a way of adapting to climate change instead of looking at areas that might be more natural but less likely to attract the big dollars in terms of patents. What do you say to that?

Dr Robertson—Maybe I can put some context around that comment. Firstly, there has been a significant change in CSIRO over the last several years where we are not only looking at agriculture from the perspective of productivity but also trying to match that productivity

with the environment and using natural resources. The agricultural sustainability program, which is quite a considerable and large program within CSIRO, is addressing just that issue.

In the context of your comment on genomics, firstly, I suppose I ought to say that in cotton, for instance, the use of GM varieties for herbicide tolerance and disease resistance have reduced the amount of pesticide use by 80 per cent in the industry. The monitoring of streams and rivers in the cotton-growing areas has shown that one of the major pesticides, a fungicide, that is used has reduced almost from being very high to zero over the last four or five years. So in the context of strategy, GM has a part to play in reducing pesticide usage, in preventing ploughing and tillage and in improving that system. The same amount of ploughing in does not need to be done any more. GM has a part to play in the total strategy. Within the organisation, we now have the ability to look, and are looking, at total farming systems—not just converting from the traditional agronomic approaches to new GM approaches but actually bringing in those approaches as part of the total farming system.

Senator ALLISON—As I said, I understand the trial was done with a dozen or so farmers, maybe more, was very successful in doing exactly what you are talking about—reducing pesticides and fertilisers, increasing humus in the soil, and building soil which retains water and all the good things that we know about natural systems. I am surprised that no-one at this table can even tell us about that trial.

Dr Sandland—The science that is done across the organisation is enormous in scope and enormous in technical detail. We just cannot have all the details here, but we are very happy to take them on notice.

Senator ALLISON—I know. We have some people at the table who are obviously working in this field. I am just surprised that there is not more cross-dialogue. I will move on.

Dr Sandland—There is. Looking at our research programs across the organisation, 50 per cent of them actually now involve very significant cross-divisional cooperation between researchers. I would also like to add that, when we assess the relevance and impact of the research we do, we are not just talking about dollars; we are also talking about environmental benefits and social benefits.

Senator ALLISON—I would hope so. If the results of that pilot study, when we discover who did it, can be made available, that would be really useful.

Dr Vertessy—We have taken that.

Senator ALLISON—Talking about fertilisers and pesticides, is CSIRO doing any work on looking at the content of essential minerals within the food which is now produced? As I understand it, there has been a problem over time with the increase in use of fertilisers in particular. We have had a comparative loss of some of the elements that you get in foodstuffs. Are we doing any work on that? Do we know what it is that diminishes the amount of magnesium that ends up in carrots or whatever is in carrots?

Dr Sandland—Dr Robertson is the best placed to answer that question.

Dr Robertson—No, within the organisation I do not believe we are working on the relationship between growing nutrients organically and, if you like, the quality of foods—whether that be the organoleptic quality or the nutritional quality. But I should say that that

work has been done virtually in every country I know of around the world. Whilst there is a view that crops that are grown organically are of higher quality nutritionally, I do not think there has been any work that has ever supported that view scientifically.

Senator ALLISON—No study has supported that scientifically? Is that your view?

Dr Robertson—I am talking outside CSIRO. I am talking about my knowledge of the food industry. I came out of the food industry both at the commercial level and at the scientific level. I have worked in both areas of that in Europe, where organic food, of course, is being driven quite strongly by the consumer. You ask why we are not doing more in organic farming in Australia. It is probably because there is not a stronger consumer drive for organic products. The marketplace responds to that.

Senator ALLISON—Unlike so many other countries around the world. Don't you think there is a consumer issue here? Some people do buy organic foods. If I can use my own experience, they do spend a lot more money on that food in the expectation that it will be better. Aren't they entitled to know whether this is the case?

Dr Robertson—Yes, maybe. But that is not the role of CSIRO. The food industry responds to the marketplace. It is for the marketplace to send those signals out and for the industry to respond.

Senator ALLISON—And this is of no interest to CSIRO and its work in this field?

Dr Robertson—Nutrition is of enormous interest to CSIRO. In fact, we do a huge amount of work on the relationship between food, nutrition and chronic disease. We have a whole flagship in preventive health, and the nutrition division underpins the capability in that area, which is growing. We are very interested in that. But we are not specifically working in the area of organic growing and nutrition or the nutrients that end up in the materials that go into foods. But I think a lot of that work has been done.

Senator ALLISON—I am very surprised by that, Dr Robertson. I will send you some of the studies that have come across my desk, mostly from overseas. I am surprised to know that we are not doing this sort of work either. On a related matter in terms of disease, there is endocrine disruption with fertilisers and pesticides. It was an issue that came up in our water inquiry. There was quite a lot of evidence about particularly fauna and presumably humans as well being affected by endocrine disrupters related to the chemicals used in agriculture. Is there any work being done on that?

Dr Vertessy—Our division undertakes work on endocrine disrupting chemicals in the environment and looks at a range of products from pharmaceuticals et cetera and the way that they mobilise through the environment and are taken up by aquatic organisms. But we do nothing in human health at all.

Senator ALLISON—Nothing in human health?

Dr Vertessy—No. Not in human health.

Senator ALLISON—Nothing related to our own agricultural practice?

Dr Vertessy—No. There is certainly work in relation to our agricultural practice. Our work seeks to identify the sources and pathways of endocrine disrupting chemicals, some of which

may come through agricultural systems but some also which come from industrial and human settlement systems as well. But our research is really stopping at looking at the way in which they are taken up by things like fish and molluscs et cetera. My division is not undertaking any work on the uptake in humans, but there may be other parts of the organisation where that work is done.

Senator ALLISON—I have also read a few studies about the implications of chemical fertilisers in agricultural pesticides for cancer. Quite a large identified group of cancers can now be said to be related to agricultural chemicals and some autoimmune diseases, such as asthma and the like. I know we are getting into health related research, but it seems to me there is an argument for looking at our systems through the sort of work that CSIRO does. We are not doing that either?

Dr Vertessy—Once again, we are quite active in undertaking research in the area of pesticide movement and heavy metal pollution movement through the environment—understanding where the sources are, the sinks in the environment and the transformations that occur through the environment. Once again, our work stops short of exploring the human health implications of that. It would be complementary research to epidemiology, for instance, that might take that perspective.

Dr Robertson—I think it is important to distinguish between the potential of agricultural inputs, be they pesticides, fertilisers or whatever, and the content of them that is in the foodstuffs we eat. We have a very robust regulatory system within Australia, with Food Standards Australia New Zealand, which lays down specific levels of acceptable chemicals in food. All the studies that are being done in food production ensure that these levels are met. These levels are based on toxicological safety levels. So the potential for the chemicals is—

Senator ALLISON—Are ours the most stringent in the world?

Dr Robertson—I think ours are much the same. I am not involved with Food Standards Australia New Zealand—I have been in Europe with the European systems. My understanding is that they are very much the same because there is food traded across the world between countries; therefore, they need to be.

Senator ALLISON—I do not have the information with me, but again I seem to recall that there are still some products in use here which were long ago banned in the United States, for instance. Is that the case?

Dr Robertson—That may well be the case. I do not have that information to know for certain.

Senator ALLISON—Could I put that on notice. What chemicals, pesticides or whatever used in agriculture are still in use in Australia but have been out of use or banned in other countries? I want to have some sort of idea of where we stand.

Dr Robertson—That is not our specific research area or our expertise.

CHAIR—That question should really go to APVMA in the Department of Agriculture, Fisheries and Forestry. They are the regulating authority.

Senator ALLISON—Yes. That is a good point. I am sorry. I want to pick up on a comment made by Dr Prideaux about the expectation that CSIRO work will be taken up in technology. I

want to ask about the \$12 million that was used for research that established the ECOmmodore. I think it must have been your auto department, CRC or whatever. The expectation, as I understand it, was not that that technology would be taken up. This is the hybrid petrol-electric vehicle that Holden and CSIRO worked on together.

Dr Sandland—There was an expectation that that piece of work would lead to more work exploring hybrids with environmental benefits and potentially for Australian industry to take up hybrids and get a technological advantage there. Certainly when that work was carried out, we were looking at its potential impact. We continue to look at the potential impact of that work and the work that has come subsequently to that. There is some continuing work in that area in the Energy Transformed Flagship.

Senator ALLISON—So have we got another auto manufacturer in Australia interested in hybrid technology? Holden obviously is not.

Dr Sandland—The answer to that question is no at this stage. We continue to look at the potential for the impact of our research. We will continue to examine that in the light of precisely those considerations and concerns that you have just enunciated.

Senator ALLISON—I understand the ECOmmodore uses half the petrol that a regular Commodore uses. It is not that much more expensive to put on the production line and so forth. I saw it at the time it was produced. It seemed to be a very promising prospect.

Dr Sandland—As you are aware, since that time, obviously, the world's auto industry has gone through some quite difficult times and decisions on production. Going from a prototype to production is not always a decision that is taken in Australia anyway.

Senator ALLISON—So was that understood at the time that \$12 million was spent on this research?

Dr Sandland—I am not aware of the exact amount of money that was spent on the research.

Senator ALLISON—I think I got that off the website, so I doubt it. It may or may not be right. I do not know. It is information you provide.

Dr Sandland—The implications of some of this work have been to create some follow-up projects. One of those is in the area of ultra batteries with significantly improved properties that may well have applications globally and in that industry. Clearly, with a lot of research when it is initially undertaken, while we may have an expectation about the creation of an industry or the development of some significant benefits, there is always an element of risk. That risk is not just associated with the research itself but how that might be taken up with industry. It is very clear now that when we undertake research we are looking at the route or path to impact as a very significant criterion in investing in that research. That path to impact, as I emphasised to you earlier, is not just the impact in terms of the economic benefit but also the environmental and social benefits. So we are looking at all those considerations. We are actually requiring our teams to come up with a well articulated route to impact. As we go through that process, the types of questions that you are addressing now will be precisely the ones that we address in that process.

Senator ALLISON—I hope somebody takes up the technology that CSIRO has found.

Dr Sandland—There are certainly some promising areas there, such as the ultra battery.

Senator ALLISON—I was astounded that the purpose for the ECOmmodore went from being the production of a hybrid in Australia to an opportunity to showcase our component parts, which I think is now said to be the reason for it.

Dr Sandland—A very important part of that whole process was bringing together a very large number of different component parts and component technologies that went into that showcase vehicle. So my understanding—and I may be wrong on this—is that a lot of that investment was not made by CSIRO but by others who wished to participate in that study. However, I will check that for you.

Senator ALLISON—Indeed. Yes, thank you.

CHAIR—We have to stop now. Do you have many more questions for CSIRO?

Senator CARR—I do have a great many questions, but we have exhausted the time. I propose to put the questions on notice. I trust the officers will have an opportunity to answer those questions before the election, whenever that is held. I understand that AIMS officers have been brought down from northern Australia. I would hate to think they were not given the opportunity to at least answer questions before went back. What time did you say their plane leaves?

CHAIR—I do too. They need to leave by 4.40 pm. We need to have an afternoon tea break. I will call that now.

Mr Whelan—You asked about our collection profile earlier. I wanted to clarify it. The three gazetted collections are herbarium, wildlife and insects. Fish is not gazetted. I said fish was gazetted.

Senator CARR—I see. I thought there were 11 collections.

Mr Whelan—There are all up, three are gazetted.

Senator CARR—We will pursue that issue on notice and come back to you at the next round.

CHAIR—Thank you very much.

Senator CARR—If AIMS comes on, we may have to put questions on notice given the time. I do not want any criticism from the government about them being called given the appalling organisation to bring them on last as one of the agencies.

CHAIR—The question of who was to be called was entirely up to the opposition, as I understand it.

Senator CARR—I was not asked at all. That is absolute nonsense. It is a government decision to put them on last.

Senator Brandis—Your colleagues did not ask me, Senator Carr. Blame the government.

CHAIR—There is not time to argue about this now. However, we will have an afternoon tea break until 4.15 pm. AIMS will come on then until 4.45 pm. Thank you, gentlemen from CSIRO, very much.

Proceedings suspended from 4.01 pm to 4.14 pm

Australian Institute of Marine Science

Senator CARR—Who are the officers at the table?

Dr Doherty—I am Dr Peter Doherty, Research Director of Australia's tropical marine research agency.

Senator CARR—You have changed the title, have you?

Dr Doherty—No. The title of the organisation is the Australian Institute of Marine Science but that is the label we attach to ourselves to describe our activities.

Senator CARR—So you are not the Institute of Marine Science any more?

Dr Doherty—I am sorry, Senator. I did not mean to distract you. Our name is as we were christened under the act. We are the Australian Institute of Marine Science, or AIMS.

Senator CARR—I am sorry. I did not know there had been a name change. That was the point.

Dr Doherty—No. It is not a name change. It is a logo, if you like. It is a branding for our position in the Australian science scene.

Senator CARR—The organisation has done a little better than CSIRO. You have got a \$5 million increase over four years. Is that correct?

Dr Doherty—It is if you understand the basis for the calculation. So, in our matching program review and our recent negotiations with government about forward commitment, we have gained a small increase in our baseline funding. But the biggest change has really been that the funding basis has been converted from a triennium to a quadrennium. We do welcome both of these things, particularly the relief from the efficiency dividend, which is one of the major contributors to the small increase in baseline funding. Of course, you can imagine the cumulative negative impact that that has had on us.

Senator CARR—Are there any strings attached to the extra \$5 million?

Dr Doherty—No. There are no strings attached to that. I would have to say that the relief from the efficiency dividend finally brings us into line with the other agencies.

Senator CARR—So how much money did you seek?

Dr Doherty—Well, the item that I have just referred to is the negotiation about our baseline funding, so that is separate from any matter of a new policy proposal, for example.

Senator CARR—Do you have any new policy proposals?

Dr Doherty—I believe that we do have one being discussed with the government. But you would understand that that is a cabinet-in-confidence matter.

Senator CARR—So it is possible we will see additional commitments made in the budget itself?

Dr Doherty—I think it is possible. Of course we are hopeful because in terms of our capacity to respond more proactively to the challenges in tropical marine science this would be very helpful.

Senator CARR—Dr Poiner, the CEO, is quoted in January as saying the additional \$5 million:

... is very small, particularly when historically our base operating fund has not changed in more than a decade.

Dr Doherty—I think Dr Poiner is reflecting on a situation over the last 10 years which, because of the application of the efficiency dividend, had a cumulative negative impact on our baseline funding. So even though that is growing according to an inflator amount by the department, it is still being reduced by the application of the efficiency dividend. Of course, we have had the relentless increase in costs that attaches to all agencies. Just recently, in this last 12 months, for example, as the owner and operator of two significant research vessels, we faced a significant hike in fuel costs.

Senator CARR—So is there additional funding sought for the AIMS at JCU project?

Dr Doherty—Yes. That was certainly a welcome development and outside our baseline funding. It is of course one-off funding, so the funding for that is starting to wind down. But I have to say that the AIMS at JCU allocation has allowed for significant closer collaboration with the university and investment in infrastructure that will lead to some enduring collaborations no matter what the impact of recurrent funding. So there are many things that I think we can be quite proud of.

Senator CARR—I want to talk to you about the situation of the staff losses. AIMS sacked seven people last year. Is that right?

Dr Doherty—I would certainly not use the term ‘sacked’. What we had worked our way into in the last one or two years as a result of the increasing costs and the impact of the efficiency dividend—cumulative impact, I might add, over a significant period, perhaps a decade—was that our income from both appropriations and external earnings and our actual operating expenses in terms of staff and other necessary costs had moved into deficit. Our governing council directed the AIMS management that that was an intolerable situation and that the budget must be balanced by the time of going forward into 2007-08. So we did a fairly careful review, of course, of all the options to be able to again trim costs. And ultimately for an agency like ourselves, the largest proportion or the largest flexibility without tying up a vessel, for example, and significantly impeding capability was to look at the staff, particularly in the scientific areas, and decide which of those science areas were most important going forward into the next quadrennium. Reluctantly, we were forced to identify seven positions, which were then actually redundant. That is to say, the institute will stop doing those things. In fact, it is an admission that we are reducing capability.

Senator CARR—Can you provide the committee with a list of those seven areas?

Dr Doherty—Absolutely. It would probably be easier and more accurate to do that on notice, given the time.

Senator CARR—I appreciate that. Do you anticipate any further retrenchments in the current year?

Dr Doherty—I would say that the negotiations that are in place over this are not all fully enacted at the moment. They might have slightly different timetables to them, so I will not say that one or two of them will not turn up in the next financial year.

Senator CARR—So further redundancies?

Dr Doherty—No. I am referring to the seven positions that have been identified here, just the implementation.

Senator CARR—So you do not expect any more than the seven?

Dr Doherty—I will only say about that that, on the basis of the recent changes in the baseline funding with a balanced budget now going forward into the next financial year, our financial projections over the quadrennium also show a balance between revenue and expenditure.

Senator CARR—Thank you. How much was the budget short before the decision was taken to make the seven people redundant?

Dr Doherty—I believe when all things were considered that the deficit was of the order of certainly in excess of \$1 million and less than \$2 million.

Senator CARR—Can you confirm that the CEO argued that the loss of qualified marine scientists was putting national assets such as the Great Barrier Reef at risk?

Dr Doherty—I certainly do not recall the CEO ever using such emotive language and I do not think that we would stand by a statement like that. No, that is certainly not accurate. I have never heard that from Dr Poiner and I do not believe he would have said that.

Senator CARR—I will come back to you with a question on notice, where we can identify where that was said. Thank you very much. I have a series of questions that go to research funding. I might have to put them on notice given the hour. You will obviously need to get to your cab between now and 4.40 pm, so I will put the rest of my questions on notice. Thank you very much.

CHAIR—Thank you very much for your long wait and for appearing today. It is very much appreciated. Thank you.

Dr Doherty—Thank you very much.

CHAIR—We will move on to Questacon. Could the officers from that agency come to the table, please.

[4.24 pm]

Questacon

CHAIR—Welcome, Ms Paul and Professor Durrant. Senator Carr has some questions for you.

Senator CARR—Feel free to answer them. Do not be intimidated by all these officers around you. Professor, could you indicate to me how your budget is formed? You do not get a separate budgetary line as the other agencies do, do you?

Prof. Durrant—Regarding how our budget is formed, the current appropriation is standing at \$11.887 million, which includes \$1.657 million funding for the Backing Australia's Ability

program and \$1 million for a scoping study into accommodation needs. In addition, there is a further \$1.625 million as part of a capital upgrade for the Questacon facility that was announced in the last federal budget.

Senator CARR—When Backing Australia's Ability comes to an end, your budget will drop by \$1 million. Is that how it works?

Prof. Durrant—Yes. That is a lapsing program.

Senator CARR—When will the scoping study be concluded?

Prof. Durrant—We are hoping to complete that this year.

Senator CARR—So we can look forward to a reduction in your budget for \$1 million for that?

Prof. Durrant—That is specific money for one particular piece of work, and that piece of work will be done. The output of that work will then be handed over to the Australian government for further consideration.

Senator CARR—So what is your base funding allocation?

Prof. Durrant—The base funding, not including the Backing Australia's Ability money, is \$9.23 million. In addition to that, we have the money that we earn from other sources. The budgeted revenue from other sources for 2006-07 is anticipated at \$8.171 million, which represents 41 per cent of the total expected revenue.

Senator CARR—That comes from where?

Prof. Durrant—It comes from visitor income—people paying to come into Questacon—membership, shop sales, cafe sales, a small amount of commercial work, consultancies, venue hire and probably a few miscellaneous things I have forgotten.

Senator CARR—Thank you. Are your discussions about budget with the deputy secretary of the department or with the secretary herself?

Prof. Durrant—They are through the deputy to the secretary.

Senator CARR—What is the rate of base funding increase over the last three years?

Prof. Durrant—We have been doing fairly well within the Department of Education, Science and Training. You will remember when we first had a conversation that Questacon was then in DCITA. We are able to get a lot of support from the department in terms of corporate support for HR, finance, legal and IT, and support with audit and a few other things. So we are getting a lot of opportunities in the department. We have been able to get a little more funding for early childhood work and for Indigenous work because we can align very well with some of the broader directions of the department in government policy.

Senator CARR—What additional funding have you sought to meet recurrent expenditure—building maintenance or new projects?

Prof. Durrant—As I mentioned earlier, we received a capital grant of \$15.3 million in the last federal budget, which will cover our ongoing depreciation and maintenance needs for that building over the next four years. It is a well-loved facility and it gets hammered by a large number of visitors. In fact, it has the highest visitor density in the parliamentary zone. It was

built in 1988 to a modest budget. Constantly we need to maintain or keep the life of the asset going by regular injections of capital. The capital funding we have just got will allow us to do a whole range of things to keep the building up to the required level for a building in the national capital.

Senator CARR—Are the visitors mainly schoolkids?

Prof. Durrant—Our visitors are children of all ages. We get 117,000 schoolchildren through Questacon in organised groups. We then get a lot of families. So, yes, very much we get a large number of schoolchildren and children through. But also we work very well in intergenerational learning, so it is that interaction between children and their parents and guardians. So we appeal to a wide range of things. But then with the outreach programs we have specific targets. We have eight outreach programs for which the base in Canberra is the hub. They are all specifically targeted at different age groups. There are different tools for different jobs.

Senator CARR—I will come to that in a moment. I must say I have always found your exhibitions to be terrific and very popular. I have never known the place to be anything but crowded. The outreach programs are the ‘science circuses’. That is what you call them, isn’t it?

Prof. Durrant—We have eight outreach programs. The Science Circus is one specific program that is the longest running. It has been running for 21 years now. In fact, it is the world’s longest-running science centre outreach program. But that is a program that we run in partnership with Shell Australia and the Australian National University. It is a training program for scientists and engineers who do a one-year Graduate Diploma in Science Communication. For part of that work, they take the Science Circus, which is a mobile science centre, out across rural, regional and remote Australia. The other outreach programs include Smart Moves, which is funded by Backing Australia’s Ability. That was the money I referred to earlier. That is targeted at secondary school pupils in the classroom. It takes young scientists and engineers into the classroom to stimulate and excite youngsters at a critical time when they are considering advanced study options and careers. You can make an impact by targeted interventions at certain stages during that supply chain of scientists and technologists.

In addition to that we have the Tenix Questacon Maths Squad, which is a mobile maths resource that engages young people in maths through puzzles and problem solving. We have NRMA RoadZone, which is a road safety program that is currently attracting a lot of media coverage in New South Wales at the moment. We have our Questacon Science Lines, which is our range of Indigenous programs. We have the Questacon Sydney Science Squad, which is a small program based in Sydney where people go into schools and community venues with stimulation activities—science shows. We then have Questacon Science Play, which is a new program for which we have just received a bit of development funding. That is aimed at taking experiences for early childhood out into rural and regional areas. We are currently developing that at the moment.

Senator CARR—Is it the case that each of these programs brings private revenue into the institution?

Prof. Durrant—Some do and some do not. If you just bear with me a second, I can give you the exact figures for that.

Senator CARR—You can take it on notice because we are running out of time today. Across those five areas, what is the amount of money that is actually put in by way of appropriation funding and the amount of money attracted from other sources, be it the ANU, Shell or whatever, for each of the programs and the number of people you think you service through them or who participate in the programs?

Prof. Durrant—I have some figures here. I am happy to give them to you or provide them on notice, if you prefer.

Senator CARR—If you can table them now, that would be terrific.

Prof. Durrant—Okay. The Shell Questacon Science Circus costs just over \$1 million a year to run.

Ms Paul—Would you prefer Professor Durrant to get them ready for you?

Senator CARR—I would prefer to get them written out. I would like them in a form that I can use. As you know, I am interested in this program. The point of these questions is whether or not there is a leverage arrangement with the appropriation moneys. Is it done on the basis that you will seek additional moneys from other sources?

Prof. Durrant—I will provide all the information on notice. It varies from program to program. The maths squad is fully funded externally. The indigenous program is fully funded internally. That is an example of two members from the extreme end of the spectrum. Shell contributes just over 20 per cent of the cost of that. The rest is raised by revenue when we go into community venues, a contribution from the ANU and, again, some contribution from appropriations.

Senator CARR—Have you sought any additional funding for the department or the government to extend the circuses?

Prof. Durrant—Not to extend the circuses, no.

Senator CARR—Have you sought any additional private sponsorship to extend the circuses?

Prof. Durrant—We had a conversation about a year ago with another organisation. We were encouraged by Shell to see if we could bring on some more private sector investment. At the moment, we do not have that additional support.

Senator CARR—Are you satisfied that the sponsorship arrangements are sustainable?

Prof. Durrant—Questacon is a resource hungry organisation. A director is never satisfied with the levels of funding. We use the money we get very well, but we can always use more. We are constantly seeking further investment from the private sector and philanthropy and wherever else we can get it.

Senator CARR—If additional funds did come your way in the budget process, do you think you could leverage additional sponsorship?

Prof. Durrant—It is an interesting question. It depends what the program is for. There is a fundamental principle which I think is important. You need to encourage investment from the private sector. If you can set it up in such a way that there is a return, be it in tax relief or some other mechanism, I think there is an opportunity to do that. Having said that, although the level of sponsorship in philanthropy is growing in Australia, it is still behind the curve relative to other countries, such as in North America or Europe, where there is a longer tradition and better ability to support cultural needs and overall corporate social responsibility.

Senator CARR—What additional measures can government take to assist you to secure additional funds to expand your programs?

Prof. Durrant—I would love the opportunity to write an answer to that because I think there are quite a lot of things.

Senator CARR—Would you like to take that on notice?

Prof. Durrant—I would, because it is a very, very big and a very important question. It is not just Questacon. It affects the whole of the cultural agencies and, indeed, sporting life and many other areas.

Senator CARR—You would appreciate my interests at this point are focusing on this portfolio. Sport may be a little beyond the answer. So if you could, I really would appreciate an answer.

Ms Paul—We will focus on this portfolio.

Senator CARR—Thank you very much. I will leave the rest for this time. Thank you very much. The rest of the questions I will put on notice given the hour.

CHAIR—Thank you very much, Professor Durrant.

Prof. Durrant—Thank you very much.

CHAIR—We will now move on to the Science Group.

[4.36 pm]

Science Group

Senator CARR—Can we take questions on cross-portfolio now?

CHAIR—No. We are dealing with the Science Group first.

Senator CARR—What is the problem? What seems to be the major breakdown in communications here?

CHAIR—It is mainly because your request to change the program was extremely late.

Senator CARR—It is not a change in program. It is custom and practice to ask questions on cross-portfolio first when the officers appear.

CHAIR—I am not changing the order of the program now. We will deal with the Science Group now and then cross-portfolio.

Senator CARR—I want to know why it is that we have not had answers back to questions asked last time. You have managed to avoid that matter all day. When will I get an answer?

CHAIR—When we come to cross-portfolio, I expect.

Senator MILNE—I want to ask some questions with regard to cooperative research centres. In particular, I would like to start with the CRC for coal and for sustainable development specifically. I would like to ask about the partnership arrangements the CRC has and what rules govern those partnerships with regard to whether or not research is made public. Does the private sector partner have control over that? What are the controls in relation to that particular CRC?

Ms Borthwick—I will refer that question to Ms Emery, who is the CRC program branch manager.

Ms Emery—I think you are talking about the CRC for Coal in Sustainable Development. As I was getting out my papers, I missed your exact question.

Senator MILNE—The exact question is in relation to the partnership arrangements within the CRC, particularly with the private sector. I want to know what arrangements are in place for control over the research products that are developed, be they reports, publications or whatever. What are the rules governing the release of that material?

Ms Emery—The rules would normally be set out in their centre agreement, which is an agreement between the CRC itself and its participants. The Commonwealth is not a party to that agreement. There is also an overarching Commonwealth agreement which sets out the relationships between the CRC and the Commonwealth. We have certain obligations under that. At this stage, I do not know what arrangements are actually in the centre agreement. I do not have them to hand. I could take that on notice. I can say that the Commonwealth funding which goes into a CRC could be about a quarter of the actual resources which go to that CRC. It is really up to the participants and the company which surrounds the CRC to decide what happens with the research and whether it gets published or not.

Senator MILNE—What I would like to know are the arrangements that govern the release of publications from the CRC. You said you can find that, so if you could take that on notice.

Ms Emery—Certainly, as much as is set out in the centre agreement, yes.

Senator MILNE—In particular, I am interested in a report by N. Dave, T. Do and GJ Duffy entitled *Assessment of the aqua ammonia process as an option for CO2 capture from coal-fired power plants*. According to the information I have, that report was meant to be released some time in 2006-07. I would like to know whether that has been released and when it is expected to be released. Is that one of the reports that is covered by the agreement with the private sector? I would like to know the specifics in relation to that report.

Ms Emery—The publication or otherwise would be governed by the CRC itself. That is taking into account the interests of the participants within that CRC as to when things are published. I should also note that often research by a CRC may not be published. That is to protect its commercial integrity. We can look into it further.

Senator MILNE—I specifically would like an answer to my question in relation to that information because, with 25 per cent of the funding to this institution coming from the taxpayer, the taxpayer has a right to know what is being published and what is not being published. On that basis, I would particularly like to know what has become of that report and when it will be made public.

Ms Emery—We will take it on notice and see what information we can get.

Senator MILNE—Thank you. The next question I would like to ask relates to the weeds CRC. Who is the best person to ask about that?

Ms Emery—Once again, that is me. I am the CRC program manager.

Senator MILNE—You would be aware of the draft Productivity Commission report in relation to CRC funding or CRC outcomes?

Ms Emery—Yes.

Senator MILNE—In particular, it says there is a bias towards supporting risky collaborations with fewer spillover benefits to the community. It recommended that the projects with higher expected social benefits receive greater funding than the proportion of benefits accruing to CRC participants rather than the narrower returns to the corporate sector. In particular with the weeds CRC, is it true that it is going to be defunded as of 2008?

Ms Emery—The CRC for weeds, Australian Weed Management, will come to the end of its funding on 30 June 2008. It has not been defunded. It has come to the end of its funding.

Senator MILNE—So it has come to the end of its funding. Is it true that there was a bid for an invasive plant CRC to replace the weeds CRC?

Ms Emery—There was a bid for an invasive plant CRC, yes.

Senator MILNE—And it failed?

Ms Emery—Yes. That is right.

Senator MILNE—Why did it fail?

Ms Emery—Each of the applications is considered against four selection criteria, which are set out in the guidelines. From memory, it would have been at least unsatisfactory on one of those selection criteria.

Senator MILNE—And what were the selection criteria? Who wrote them, particularly?

Mr Cook—While Ms Emery is looking through her brief, I will answer the second part of the question for you. The guidelines for the CRC program are developed in the first instance by the CRC committee, which comprises a number of independent people with different scientific and other backgrounds. They are then formally approved by the minister. So the minister is the decision maker in respect of the guidelines and at the end of the day who is successful and who is funded.

Senator MILNE—Who was the minister who signed off on the guidelines for the weeds CRC at the time?

Mr Cook—The guidelines are generic. That is, they apply to all CRCs that are applying for funding. Ms Emery will explain in a moment what those selection criteria are. So each application is assessed against the same generic set of guidelines. In the case of the last round, I suspect they were signed off by Dr Nelson because he was minister at the time.

Senator MILNE—Originally they were developed and signed off by Minister McGauran at that time. Is that correct?

Mr Cook—The guidelines are revised each time we undertake a selection round in light of feedback from applicants as to issues they may have with them. In Mr McGauran's time, it was also as a result of a major review of the program which led to the four selection criteria, which Ms Emery will give you.

Senator MILNE—Thank you.

Ms Emery—There are four selection criteria. The first one is that outcomes will contribute substantially to Australia's industrial, commercial and economic growth. The second criterion is that the path to adoption—commercialisation-utilisation—will achieve the identified outcomes. The third criterion is that the collaboration has the capability to achieve the intended results. The fourth criterion is that the funding sought will generate a return and represents good value for the taxpayer.

Senator MILNE—Okay. So why did the application for an invasive plants CRC fail that criteria when weeds cost Australia \$4 billion a year?

Ms Emery—Which particular criterion? I have just outlined four.

Senator MILNE—I am asking you. Why did it fail?

Ms Emery—It would have been assessed on each of those criteria. The committee, on advice from the appraisal panel, which includes experts within this field as well as venture capital and industry, determined that it was unsatisfactory against at least one of those selection criteria.

Senator MILNE—So as of July next year, we have no major research funding into weeds in Australia?

Mr Cook—No. That does not necessarily follow.

Senator MILNE—What else have we got?

Mr Cook—I cannot give you a comprehensive list off the top of my head, but I am happy to take it on notice and come back to you. Research in this area is undertaken by a number of organisations, including in the university sector. I suspect there is some work being done funded through the rural R&D corporations and so forth, but we would need to get that for you. It is not a case of either/or—that is, the CRCs do not represent in any area the totality of research being undertaken in Australia.

Senator MILNE—I am aware of that, but I am also aware of the significance of the weeds CRC in the whole struggle against weeds in Australia. There is considerable feeling about the failure to fund it and considerable awareness of the Productivity Commission report about public interest research versus narrower commercial research. What is the response of the CRCs to the Productivity Commission report?

Mr Cook—As you said earlier, it is a draft Productivity Commission report; we do not have the final report as yet. It is a study as opposed to a normal report by the Productivity Commission. The government generally will need to take a view about the findings of the PC report once it is finalised, but we are not at that point yet.

Senator Brandis—I want to add to the answer the officer has given. I am told that this cooperative research centre will have been funded for 13 years and it will have received

\$32.93 million during that time. So I do not think it is really appropriate to say that there has been any lack of consideration for this area in previous CRC funding rounds or it is right to say, as you know, that CRC programs are always renewed. Of course they are not. This is an instance of a longstanding project which was applying, I understand, for its second renewal which failed to meet the criteria but in which an enormous amount of money had already been invested.

Senator MILNE—Yes, Minister, I accept that. But do you accept that weeds cost us \$4 billion in agriculture, not to mention the natural environment?

Senator Brandis—I think it is always dangerous, Senator Milne, as you would agree, I am sure, to make general claims from particular instances. What we are talking about in this instance is the fact that, a CRC, technically assessed against certain published criteria, which had been funded for at least two funding rounds, was not renewed. What are the particular circumstances which led the decision maker to make that decision and the recommendations on the basis of which that decision was made I do not think can logically be extrapolated into some generic remark about any lack of concern by the government for the broad problem. I think you have to look at the facts of the particular case on their merits.

Senator MILNE—I think we will just have to agree to disagree about that. It will not surprise me at all in an election year, Minister, if we see a sudden interest in funding weed research.

Senator Brandis—Senator Milne, I also direct to you my answer to Senator Carr's question on this matter in the Senate last Wednesday, when I provided Senator Carr with further additional information.

Senator CARR—Since you have raised it, Senator Brandis, you made an error with that answer because you indicated that it was a decision of the evaluation panel to fund. It was the Abetz brief that was sent down to you, as I recall.

Senator Brandis—The minister makes these decisions not at random but on the basis of the evaluation of programs by technical experts and on advice, as you well know.

Senator CARR—I do.

Senator Brandis—And acts on the basis, as you also know, of published criteria.

Senator CARR—Published criteria set by the minister.

CHAIR—Senator Milne has the call. You have some questions.

Senator CARR—Can I just finish this question on weeds? I understand that Senator Abetz has intervened to support a new initiative for weeds research. Is that the case, Senator Brandis?

Senator Brandis—You will have to direct that question to Senator Abetz.

Senator CARR—Is it the case that the department is now going to fund a new national research institute, a collaborative weeds research institute? Is that the case, Mr Cook?

Mr Cook—I have no knowledge of it.

Senator CARR—Senator Abetz has not told you? I just wonder why it is that the government, on the advice obviously of some highly competent officers, has chosen to defund a highly successful, thriving CRC and replace it with a smaller collaborative research centre or a collaborative research institute, I take it.

Ms Paul—It is not a defund, as Mr Cook said. It is not renewed.

Senator CARR—We have been through this before.

Ms Paul—On the second part of the question about an institute, no, we are not familiar with that so we cannot take that further.

Senator CARR—So it has been funded through the department of agriculture or something, has it?

Ms Paul—We are not familiar with it.

Senator CARR—It just strikes me as odd that there would be a withdrawal of support for this CRC.

Senator Brandis—There has been no withdrawal of support. As I and two of the officers have pointed out to you—and, Senator Carr, as you well know—an application for renewal which fails at the expiry of a term does not constitute defunding a current program. You know that. I do not understand why, other than to try to make a political point, you would continue to reiterate something you know to be erroneous.

Senator CARR—The trouble is that we went through this process at the last election with regard to the reef CRC.

Senator Brandis—You are the only one talking about elections, Senator Carr.

Senator CARR—Let us be clear about what happened last time with regard to the reef and rainforest CRCs, which were equally defunded under this arrangement because they did not meet the public good criteria or the commercialisation criteria of the new guidelines established by the incompetent minister at the time.

CHAIR—Senator Carr, is this a statement?

Senator CARR—Is it the case, Mr Cook, that with regard to the reef and rainforest former CRCs there was a new body established after the withdrawal of funding for those CRCs?

Mr Cook—I think you might be referring to a program that was established in the environment portfolio.

Ms Emery—The Commonwealth environmental research fund.

Senator CARR—That is right: a political fix at the time of the last election to cover the pressure being put on by North Queensland MPs to deal with this same sort of situation. What is the political fix this time, Mr Cook? Another institute in another department?

CHAIR—You would hardly expect Mr Cook to answer that question, Senator Carr.

Senator CARR—Senator Brandis can help me. What is the political fix?

Senator Brandis—I am always very, very eager to illuminate you, but it seems to me that, having rudely attacked the chair now several times in the most ungallant way today over the way in which this program—

Senator CARR—Has been badly put together; that is true.

Senator Brandis—is progressing, you might be well advised to stick to your questions rather than waste your own time.

Senator CARR—It is a straight question to you. What is happening now? Are we going to have a new weeds institute in this department or some other to cover the political fix that is now necessary to get the government out of trouble because of the guidelines established by the former minister, implemented by competent officers, which nonetheless led to the collapse of this CRC and which has met considerable public disquiet as a result?

Senator Brandis—Let us take it step by step. Just settle down. First, there has been no collapse of this CRC. The CRC, which will have been going for 13 years and has been funded to the tune of more than \$32 million, will have expired after an application for a second renewal, as I am advised, was determined not to meet the published criteria, of which you are aware. That is the first point. The second point is that you can carry on about political fixes all you like, but I am afraid that is of absolutely no interest to the officers or, indeed, me. Thirdly, I have no information for you in relation to the principal question you asked about a new initiative. I have no information to convey to you today.

Senator CARR—The dairy CRC has suffered a similar fate, has it not?

CHAIR—I do not think that is relevant to this portfolio.

Senator CARR—CRCs are not relevant to this portfolio? Since when we have lost CRCs for this committee?

CHAIR—Do you have a question, Senator Carr?

Senator CARR—I have just asked it. What has happened to the dairy CRC?

Ms Emery—The dairy CRC is currently called the Dairy Biotechnology CRC. It will be funded until 30 June 2008. It was an application which I think was uncompetitive on its merits. I do not have the figures in front of me. We have also been in discussions with that CRC and have offered it, as with any other CRC which has not received funding this round, an opportunity to extend its contract to allow it to bid in the 2008 round.

Senator CARR—I see. This is a CRC that had \$70 million in support from industry partners, did it not?

Ms Emery—I do not have those figures in front of me. I cannot confirm that.

Senator CARR—I am just wondering how it failed to meet the criteria. That is \$70 million.

Ms Paul—Once again, this would have been a consideration made by the CRC committee and, of course, the panels that work to it, which are comprised of experts in the field. As with the other considerations, these are considerations of relative merit against the criteria, so the same process would have applied.

Senator CARR—Ms Paul, you can refresh my memory. Who established the criteria that the selection committee assesses these applications against?

Ms Paul—I think we answered that before, did we not?

Senator CARR—Let us be clear about this. Perhaps the minister would understand the nature of your answer.

Ms Paul—These have been criteria in the guidelines established now over quite a period of time.

Senator CARR—By whom?

Ms Paul—By the minister who agrees to them, as we said before.

Senator CARR—By the minister.

Ms Paul—In this case they have been extant and applied by the advisory committee of experts for some years.

Senator CROSSIN—I want to talk about the Tropical Savannas CRC. When will that no longer cease to exist?

Ms Emery—Its expiry for funding is also 30 June 2008.

Senator CROSSIN—Can you tell me what is the difference between the previous and the now current guidelines? Mr Cook, I think, said that they change each time there is a funding round. What is the change in the guidelines from this funding round to the previous funding round?

Ms Emery—The previous funding round was the 2004 selection round. I think there was quite a massive change between the 2002 selection round and the 2004 selection round, as a result of an evaluation in 2003. In relation to the selection criteria, I believe that they remained the same between 2004 and 2006, but there was additional guidance provided within the guidelines for 2006 to help applicants understand what considerations will be taken into account by the committee.

Senator CROSSIN—So my question is: what is the difference? You are telling me when they differed. I want to know what the difference is.

Ms Emery—I think the difference goes mainly to the amount of information provided to applicants to help them put in their applications. There were also some changes to the process.

Senator CROSSIN—What was the first guideline you talked about? Industrial commercialisation and economic benefit.

Ms Emery—The outcomes will contribute substantially to Australia's industrial, commercial and economic growth.

Senator CROSSIN—In that first guideline, has that been the same since 2002 and 2004?

Ms Emery—My understanding is that each of those criteria is the same as between 2004 and 2006, but I have to take that on notice.

Senator CROSSIN—What is the difference between 2002 and 2004?

Ms Emery—In 2002, I understand that there were nine selection criteria. That has now been reduced to four selection criteria.

Senator CROSSIN—Can you take on notice for me the difference, then, in those 2002, 2004 and 2006 guidelines.

Ms Emery—Yes, certainly.

Senator CROSSIN—I want to know exactly what it is that has changed.

Ms Emery—In terms of the selection criteria?

Senator CROSSIN—Both—and the guidelines.

Ms Emery—So in terms of process?

Senator CROSSIN—Yes. Everything. I want to know why the process is different and why the guidelines are different. I want to track what has changed from 2002 to now.

Ms Emery—Certainly. We will do our best on that.

Senator CROSSIN—Can you tell me which of the four guidelines the Tropical Savannas CRC did not meet?

Senator Brandis—I do not think that is the right approach to this, if I may say so with all due respect, Senator Crossin. As Ms Paul pointed out before, these are relative judgements. It is not a question of saying whether or not an application met one of the criteria but whether, relative to all of the applications competing for a finite sum of money, it was judged to be among the better of the applications. There will always be questions of degree in applying the criteria, as you will well understand.

Senator CROSSIN—So you were on the judging panel or the selection panel, Senator Brandis?

Senator Brandis—I am sorry, I did not hear the question.

Senator CROSSIN—So you were actually involved in assessing them?

Senator Brandis—No. Of course I was not.

Senator CROSSIN—I might just re-ask my question, then.

Senator Brandis—Of course I was not. But the point I am making to you—

Senator CROSSIN—I might ask the question that I want to ask, if that is the case.

Senator Brandis—is that the question assumes that it is a black and white issue as to whether or not a particular application meets or fails to meet a criterion. That is only part of the analysis. There is a competitive process in which a multiplicity of applications compete against those criteria for a finite amount of money. Therefore, of course there will be relative judgements made in determining which are to be successful. You can understand that, surely.

Senator CROSSIN—I understand that I am entitled to ask the questions I want. I can understand you are very nervous about us asking questions about the CRC, because there is really no sound basis on which some of these CRCs will have their funding withdrawn—

CHAIR—Order! Order, Senator Crossin!

Senator CROSSIN—particularly when you have set up a task force to look at moving—

CHAIR—Senator Crossin, I'm speaking.

Senator CROSSIN—and activity in the north. I can understand that you're very nervous about this.

CHAIR—Senator Crossin, would you please proceed to ask your question.

Senator CROSSIN—Thank you, and I would like to ask my questions without some splat and rude interruption from the minister at the table.

CHAIR—That is very disorderly. I wish that you would ask your question without any further reference.

Senator CROSSIN—Let us see if we can get on with this. We can take all night. We will go through this month by month—

CHAIR—No, we won't.

Senator CROSSIN—and guideline by guideline if we have to.

CHAIR—We will not be taking all night; I can assure you of that.

Senator CROSSIN—Well, we just might have to do that.

CHAIR—Would you please proceed to ask the question.

Senator CROSSIN—For generic guidelines, Mr Cook or Ms Emery, can you explain to me in detail how, then, they are assessed against an application.

Mr Cook—I will give it a go and Ms Emery can add to the details.

Senator CROSSIN—Thank you.

Mr Cook—The way in which the process works is that, firstly, people apply, of course, to be funded under the program. Those applications are assessed by expert panels in the areas. As you know, we have six broad areas that the CRCs fall into.

Senator CROSSIN—How are they assessed?

Mr Cook—They are assessed against the criteria in the guidelines.

Senator CROSSIN—Using what method?

CHAIR—Senator Crossin, would you please allow Mr Cook—

Senator CROSSIN—I'm allowing Mr Cook to answer—

CHAIR—to finish his answer before you interrupt him.

Senator CROSSIN—I do not want a general answer. I want a really specific answer now. I want to know if there are qualitative or quantitative ways in which those guidelines are assessed against the research.

Mr Cook—There is a combination of both. In terms of much of the way in which the process operates, it is effectively a peer review process undertaken by experts in the field, who judge the CRCs in their particular field against one another. Then there is a moderation process across that to ensure that each of the panels are actually applying the same sort of standard in their assessment to each of the applications. So it is a pretty well-trodden path in

terms of the way in which research proposals in the system generally are assessed. There are quantitative components to it, because that goes to the amount of money which is being sought, the amount of contributions, both cash and in kind, which are being proposed to be provided by the parties to the CRC and what the CRC has to say about the returns they expect to get from the research they propose to undertake. So all those things are brought together in terms of how they are assessed against the particular selection criteria.

Once the expert panels have done their work and the moderation process takes place—that is aided by the fact that members of the CRC committee participate in those discussions, again to ensure that everybody is treated equitably—the CRC committee looks at the results of that process. That is the end of the stage 1 process. They then go through a process of reviewing what the expert panels are saying, asking their own questions, bringing their own expertise to bear to decide on a short list, if you like, of applicants who will then be asked to come forward with a full proposal. A similar process takes place, except in more detail, at that second stage of the development of the proposal. The idea is not to force people to put too much effort in too early in case they are not going to be competitive. The committee then meets again and decides which of those second round proposals—

Senator CROSSIN—That is the CRC committee?

Mr Cook—the CRC committee—they believe warrant interviewing, based on the more detailed information we now have at that point in the process. Having taken those decisions, the process moves on to the interview process, where the applicants who are still under consideration at that point in time are invited to an interview by, again, expert panels, again accompanied by a member of the CRC committee—and, in some cases, more than one—to enable the panel and the committee to tease out issues which they think need more clarification or on which more information might be sought. Following the interview, it is also not unusual for more detail to be sought to give everybody the opportunity to put all their claims on the table.

Once that process is worked through, the CRC committee meet again in plenary with the chairs of the expert panels to work through all the results of that entire process and to assess the CRCs against the selection criteria and come up with a ranking of how people see them in terms of their relative competitiveness. So there will be someone who is regarded as the best at the top and someone who is regarded as least competitive at the bottom. That is broadly the way the process works.

Senator CROSSIN—Who oversees the moderation process?

Mr Cook—The CRC committee oversees the moderation process.

Senator CROSSIN—Can you provide me with a list of the names of the people who were on the expert panel for the tropical savannas CRC?

Mr Cook—I think we can.

Senator CROSSIN—Can you provide me with the list of people who were on the CRC committee?

Mr Cook—Yes.

Ms Emery—Certainly.

Mr Cook—That is on our website.

Ms Emery—It is indeed.

Senator CROSSIN—So did the tropical savannas CRC get to the interview process?

Ms Emery—No. It got a stage 2 application in but was knocked out before interview.

Senator CROSSIN—Which of the four criteria was it not successful in meeting?

Mr Cook—At that point in the process, it is not about whether or not it met the criteria. It was judged not to be competitive relative to other applications.

Senator CROSSIN—What were the reasons on which it was judged not to be competitive?

Mr Cook—We provided, and the CRC committee has provided, written and oral feedback to the applicants, which we do not as a matter of policy publish. If you wanted us to investigate that, we would ask the CRC if they were comfortable with that. We do not publish it for the very good reason that people may have issues about that feedback being made public.

Senator CROSSIN—I would ask you to do that and take that on notice.

Ms Paul—We are happy to approach the CRCs.

Senator CROSSIN—The CRC has existed for how many years now—about 15 years or so?

Ms Emery—The CRC for Tropical Savannas will be funded for 13 years. It will receive a total of \$32.8 million up to 30 June 2008. So it has received two rounds of funding already.

Senator CROSSIN—Of the CRCs that were successful, are any of them undertaking or doing any similar research?

Ms Emery—I think I need to take that on notice.

Senator CROSSIN—Thank you.

Senator CARR—How many public-good CRCs were successful in the current round?

Mr Cook—If an application came forward which was purely about public good, as it is commonly understood, then under the current guidelines they needed to demonstrate that they can meet the criteria we have talked about. That does not mean that CRCs do not undertake public-good research, but it does mean they have to show the impact of their research which meets those criteria. I guess my answer would be that there is no fully public-good CRC that has been successful in the current round.

Senator CARR—That is what you would expect, isn't it, given those guidelines?

Mr Cook—Yes. A deliberate policy decision was taken to focus on the criteria we have talked about.

Senator CARR—The Productivity Commission has made some comments about the original objectives of the CRC program and suggested that they be reinstated. Obviously, given it is a draft report, I take it the department has written to the Productivity Commission and sought to change or alter their position, have they?

Mr Cook—We provided submissions to the PC both prior to the draft report and post the draft report; that is correct.

Senator CARR—Your submission post the draft recommendations being published—is it available?

Mr Cook—I would think it was on their website.

Ms Borthwick—Yes. They are both on the website.

Senator CARR—What was the view of the department with regard to that recommendation about the restoration of the original CRC objectives?

Ms Borthwick—Our submission did not go directly to the recommendations. We sought to provide what information we could from our experience on the value of investment in science and research generally and the connection between human capital and research.

Senator CARR—That is very worthy of you. But the Productivity Commission draft report made a specific point of saying that the original policy objectives should be reinstated. You chose not to respond to that?

Ms Paul—That presumably would be a matter for government. We have reflected, as Ms Borthwick says, on the impact, if you like, of the approach as we have experienced it over these years.

Senator CARR—So the government has not chosen to respond to that? Is that what you are saying?

Ms Paul—I do not know the status of that. I was simply saying that the original policy, as Mr Cook just said, was a policy decision by government. We have not reflected on that. We have reflected on our experience of the program.

Senator CARR—I will put the rest of the questions on CRCs on notice given the time. I turn now to the question of the nuclear waste dump. Mr Cook, how are you going? Is the schedule being met?

Mr Cook—There are other people more expert than me at the other end of the table who can take those questions.

Senator CARR—I thought you were the senior officer.

Mr Cook—I am and I can give you a general answer to that. Yes, the assessment of the sites in the Northern Territory is proceeding and is on schedule.

Senator CARR—I would like to know about the consultation with the traditional owners about the two locations established in the vicinity of Harts Range and Mount Everard. What progress has been made with those communities?

Mr Cook—I will ask one of the other officers to deal with the detail of that. As you know, there are three sites, which—

Senator CARR—I am looking at these two for a start.

Mr Cook—Other people have been directly involved in those discussions.

Ms Borthwick—I am not clear as to whether your question is it about the site assessment—

Senator CARR—Has there been agreement reached yet?

Mr Cook—I will give a bit of context on the current state of the process. We are still in the process of doing the necessary geophysical and other work that needs to be done looking at those sites. As part of that process there have been discussions with interested groups in the vicinity of the three sites. Could you perhaps rephrase the question?

Senator CROSSIN—What interested groups are you talking about that have now been consulted? Is that since November?

Mr Cook—I had better go to my colleagues.

Ms Borthwick—Since November we have had further discussions with the Northern Land Council. I also wrote to the Central Land Council following the public hearing.

Senator CROSSIN—You have written to them?

Ms Borthwick—We wrote to the Central Land Council following the public hearing at which we last discussed this issue asking them when they would seek a further meeting with us. The Central Land Council have indicated that they would like to meet with us again toward the end of November.

Senator CROSSIN—Last November?

Ms Borthwick—I beg your pardon—towards the end of March.

Senator CROSSIN—So the CLC have indicated they would like to meet you towards the end of March. How many times have you met with the NLC since last November?

Ms Borthwick—I think it would be two occasions.

Senator CROSSIN—Was that down here or up there?

Ms Borthwick—We met with the Northern Land Council here in January and again with them in the Northern Territory last week.

Senator CROSSIN—When you met with them last week, was that at Tennant Creek or at Muckaty?

Ms Borthwick—It was in the Tennant Creek vicinity.

Senator CROSSIN—What vicinity of Tennant Creek are we talking about—the township, the community or on the Stuart Highway?

Ms Borthwick—I believe that, again, the Northern Land Council have asked us to keep the nature of that discussion and the location confidential at this stage.

Senator CROSSIN—It is not too confidential—a lot of us know all about it. Who was at the meeting with them?

CHAIR—If Ms Borthwick has said that it has been asked that it be kept confidential, I do not see that it should go on the public record here.

Senator CROSSIN—So we still have a nuclear waste dump being negotiated in secret. I am just asking you who was at that meeting.

CHAIR—I do not think Ms Borthwick should answer that question.

Senator Brandis—Of course she should not answer the question, nor should anybody accept the absurd premise of the question.

Ms Borthwick—I am happy to answer it in the generality.

Senator CROSSIN—With all due respect, you have been very cooperative and you have not disclosed who has been at meetings in the past. You have not disclosed the content of the meeting. But where it was and who was at it I do not think has been a problem in the past. I am a bit puzzled as to why that is a problem now. Perhaps we are getting very sensitive about this now.

CHAIR—Ms Borthwick has indicated that the group from the department were asked to keep the location and other details confidential and I do not think you should ask her to diverge from that.

Ms Paul—We are quite happy, as we always have been, of course, to answer everything we can for you and then note the point at which we have been asked specifically by the Northern Land Council to adhere to some arrangement of confidentiality, as we have done in the past.

Senator CROSSIN—We understand it gets to a certain point where the cone of silence comes down. You clearly know our position about that. You know the position of the people in the Northern Territory about that. Certainly in relation to how many times you have met with the NLC, where you have met with them and who has been at the meetings it has not been a problem in the past. It is clearly known there was a meeting last week in or around the Tennant Creek region. I simply wanted to know from you which DEST officials were at that meeting.

Ms Borthwick—We are happy to advise you of that. Mr Davoren and Mr Hesterman were at the meeting last week.

Senator CROSSIN—Were there other people at that meeting that you can disclose for us, like the chairman of the Northern Land Council, Norman Fry?

Ms Borthwick—We would need to seek their permission to be able to identify who was at that meeting from the NLC.

Ms Paul—We are happy to do that.

Senator CROSSIN—I ask you to take that on notice. The meeting went for one day?

Ms Borthwick—In my understanding it was around a day, yes.

Senator CROSSIN—Can I ask if you have provided any further advice to organisations that may be looking at nominating an alternative waste dump site?

Ms Borthwick—As I said, we have had discussions with the Northern Land Council and they have reiterated their interest in a possible nomination. We have had further discussions, as we have just said, on two occasions this year. I have also written to the Central Land Council seeking a further meeting with them to discuss whether or not they have any interest in the process. They have not, as you know. In fact, they have stated the reverse—that they are

not interested in nominating. But we have offered to provide them with any information that they might wish to seek.

Senator CROSSIN—And there is no other organisation that is now involved?

Ms Borthwick—The legislation allows for land councils and the Northern Territory government to come forward with nominations. I think we have covered that territory. No-one has approached us.

Senator CROSSIN—That what I am asking—you have provided no advice to any organisations other than the Northern Land Council at this stage?

Ms Borthwick—Correct.

Senator CROSSIN—Has the time line for the facility changed since November?

Ms Borthwick—Are you referring to the 2011—

Senator CROSSIN—Your time line that is still on the website. Not the bringing back of the rods, but the actual process—has that changed?

Ms Borthwick—Not to my knowledge.

Mr Davoren—No, it has not changed. Of course, the issue of how a volunteer site is handled could impact on the schedule.

Senator CROSSIN—In what way?

Mr Davoren—It would delay it.

Senator CROSSIN—It would delay the schedule?

Ms Borthwick—We imagine that it would delay the schedule because we would obviously need to go through an assessment process of any nomination that would come forward.

Senator CROSSIN—Is there still an end time for an alternative site to be nominated?

Ms Borthwick—In the normal course of events we would expect government to be making a decision this year. Certainly the earlier a nomination was forthcoming, the better it would be from that point of view.

Senator CROSSIN—When are Parsons Brinckerhoff due to sort of pull up stumps and provide a report?

Ms Borthwick—I think we have provided that information before as well.

Senator CROSSIN—I am just wondering if the time line has changed.

Ms Borthwick—No. It is the end of March. That is when we are expecting a report from Parsons Brinckerhoff.

Senator CROSSIN—So ideally you would want to nominate a site by the end of March?

Ms Borthwick—That would certainly assist government in its decision-making process, although I do not think it is essential that we receive one by the end of March.

Ms Paul—I think as Ms Borthwick said, it makes sense to be as soon as possible.

Senator CROSSIN—Have you made any provisions for incentives to be made to any nominators of a potential site?

Ms Borthwick—Again, the discussions that we have had with the Northern Land Council are confidential at this stage.

Senator CROSSIN—Can I ask about the changes to the EPBC Act. Was this department consulted about those changes in relation to the effect they might have on the waste dump approval?

Mr Irwin—Which changes to the EPBC Act are you referring to?

Senator CROSSIN—This is the ability for the minister to actually provide exemptions rather than go through the public EIS process.

Mr Irwin—We have not been consulted by the relevant department about those changes. As such, we have not assessed any implications for the process we might have to go through for the repository.

Senator CROSSIN—So will those changes impact on the site approval process?

Ms Borthwick—Mr Irwin has just said that we are not aware of those changes so we have not made any assessment yet.

Senator CROSSIN—The changes are there. They are not pending. They have happened. Mr Davoren, in the inquiry into the first waste dump bill on 22 November, you suggested that, once the government's preferred site is identified, it would then start the long regulatory process which starts with an environmental impact assessment under the EPBC Act. You said: The Wimmera process took up to two years, although we are hoping it would not be that long.

My question to you then is: is the department still intending to put any preferred site through the full EIS under the EPBC Act that would take that long, or is there an intention to use the new changes to the EPBC Act and exclude it from that process?

Mr Irwin—Obviously we would need to examine those changes more specifically, but my expectation would be that that is not a matter for us to decide. As we understand it, we would still be required to refer the matter to the environment minister under that act. The changes that I think you are talking about would relate to decisions that that minister might make. So it would be a matter for that minister, on the basis of advice from officials from his department, to make such a decision, not us.

Senator CROSSIN—So you have had no discussions with the department of the environment about having the shorter or in fact no EIS process?

Mr Irwin—No.

Ms Borthwick—No.

Senator CROSSIN—Will the NT facility actually receive any parts or any waste products from the decommissioned HIFAR reactor?

Mr Davoren—Yes.

Senator CROSSIN—What?

Mr Davoren—It would receive many of the components of the reactor. When you decommission a reactor, depending on the schedule for decommissioning and the decay of the components in the reactor, you receive a mixture of low-level and intermediate-level waste.

The intention is that that material would go to the facility. It would not be the largest component in our inventory. The largest component remains the CSIRO soil, which was moved to Woomera in 1995.

Senator CROSSIN—Can you give me some specific indications? You are talking about low and medium waste. That would be additional to the waste that is now generated?

Mr Davoren—Yes.

Senator CROSSIN—In what way? Is this perhaps radioactive parts of the reactor?

Mr Davoren—Yes. That is right. There is quite a lot of low-activity debris in a reactor. That would form part of the low-level waste stream. Towards the core of the reactor, there are more highly radioactive components. That would form part of the intermediate-level waste, which would be stored above ground at the facility.

Senator CROSSIN—Was it always the intention to store parts of the debris from the reactor in this dump in the Territory?

Mr Davoren—Yes.

Senator CROSSIN—When was that ever made public to people? Can you take it on notice?

Mr Davoren—Yes, I will.

Senator CROSSIN—I am not aware that it is on your website. I am not aware that I have heard you say it at any of the public meetings I have attended.

Mr Davoren—I suspect it is in our inventory on our website, but I will check that.

Senator CROSSIN—Thank you. So you are still expecting the Parsons Brinckerhoff site studies to be finished by the end of March?

Ms Borthwick—That is correct, yes.

Senator CROSSIN—It is still the intention they will not be made public?

Ms Borthwick—That is a decision for government to make once they have received the report.

Mr Davoren—The information in that report will inevitably form part of the EIS and the ARPANSA licensing processes, so it will be made public one way or the other.

Senator CROSSIN—Probably selective parts of that report, I suspect.

Mr Davoren—No. I do not think so.

Senator CROSSIN—What parts do you think, then? If you are actually doing a site assessment of all three sites, wouldn't you just make public the assessment of the one that is preferred and not the other two?

Mr Davoren—Obviously yes, we would.

Senator CROSSIN—Sorry?

Mr Davoren—The information on the selected site would form part of the licensing process. That is correct.

Senator CROSSIN—I understand that Parsons Brinckerhoff are also making an analysis and an assessment of the transport options and corridors. Is that correct?

Mr Davoren—Yes.

Senator CROSSIN—Have there been any discussions with the relevant state or territory emergency services about potential routes for safety?

Ms Borthwick—I am not aware of that detail.

Mr Davoren—I am not aware of that detail. I think there would. But also once the facility is in operation, transport proceeds according to an ARPANSA licensing process which does involve the state emergency services.

Senator CROSSIN—Can you take on notice for me, then, whether Parsons Brinckerhoff has actually had any discussions with the state and territory emergency services. If they have, when? Who might have been involved in that? I do not think you will know the answer to this. Can you also take on notice for me whether in actually making an assessment of the transport options Parsons Brinckerhoff have had a close look at the cyanide spill on the Stuart Highway in the last fortnight and whether that informs any of their assessment.

Mr Davoren—I am not sure that that spill is necessarily relevant to the transport of radioactive wastes, because the packaging requirements on radioactive waste are far more stringent than on chemical cargos.

Ms Paul—The regulation of transport of radioactive waste is of course a completely different matter. It is regulated heavily by the bodies that we have talked about before.

Senator CROSSIN—I suppose my question to you goes to whether Parsons Brinckerhoff actually look at that incident and make an assessment about that transport corridor in relation to the nuclear waste facility.

Ms Borthwick—We are happy to take it on notice.

Senator CROSSIN—If you could take it on notice about whether or not it factors into their assessment process.

Ms Borthwick—Indeed.

Senator CROSSIN—One thing I have not raised in our discussions with you is that the three sites are disused Defence sites.

Mr Davoren—No, they are not.

Senator CROSSIN—They are not disused Defence sites?

Ms Borthwick—They are Defence sites, yes.

Senator CROSSIN—This question may well be relevant. I wonder if your department has had any discussions with the Department of Defence about the impact of using one of their sites.

Mr Davoren—Extensive discussions.

Senator CROSSIN—What is the nature of them?

Mr Davoren—We look at the consistency of what we are trying to do with what they are trying to do.

Senator CROSSIN—In relation to the use of those sites?

Mr Davoren—The southern sites are part of the Jindalee radar system and the northern site is an occasionally used exercise area.

Senator CROSSIN—If you want to swim or row a boat, I guess.

Mr Davoren—It is not that bad.

Senator CROSSIN—Not this year. You have missed a whole exciting year of droughts and cyclones and sink holes. I will bring him up to speed before the next estimates.

Mr Davoren—I think it is useful to note that that site is 100 metres higher than Katherine.

Senator CROSSIN—100 metres higher than Katherine?

Mr Davoren—Yes.

Senator CROSSIN—That is encouraging.

Ms Paul—I think it remains dry.

Senator CROSSIN—Are you actually talking to the Utleys now before you arrive on their doorstep? Do you give them a bit of warning now, or are you still upsetting them?

Mr Davoren—I guess we do upset them inevitably because they have a free grazing interest on that Defence land. I do not think they would like the facility to proceed. But it is a piece of Defence land with a public road through it. I am not sure what consultation arrangements proceed. But our access to the site has only happened on about three occasions.

Senator CROSSIN—Are you telling me these are not in fact disused defence sites? They are still defence sites that used in some way.

Mr Davoren—Two are.

Senator CROSSIN—The two in the southern region?

Mr Davoren—In the south, yes.

Senator CROSSIN—And the third one?

Mr Davoren—Occasionally.

Senator CROSSIN—The two in the south are mainly for radio technology and geospatial technology?

Mr Davoren—Yes. Harts Range is the sending site for Jindalee and Mount Everard is the receiving site.

Senator CROSSIN—So Defence no doubt would have to look at relocating that equipment. Is that correct?

Mr Davoren—No. They have identified areas that are consistent with their current operations.

Senator CROSSIN—On those same two sites?

Mr Davoren—Yes. They are quite large sites.

Senator CROSSIN—Yes. I know they are.

Ms Borthwick—So it is compatible with their current functions.

Ms Paul—We have put a lot of work, as Mr Davoren is saying, into ensuring that it would work.

Senator CROSSIN—That you can coexist.

Ms Paul—Yes, that is right.

Senator CROSSIN—Radio signals and nuclear waste—that is good. And so what Defence staff would be affected? Probably none, then, by what you are telling me. Is that correct?

Mr Davoren—Well, the staffing arrangements differ. Mount Everard, when I last went there, was staffed by people who live in Alice Springs. I understand that at Harts there were Defence people living there. I am not sure what the current situation is, but it was Defence's intention to operate that from people also living in Alice Springs.

Senator CROSSIN—Harts Range is a fair way. Finally, I just wanted to ask you about the Parsons Brinckerhoff spending. There are two issues here. In the past you have given me a breakdown of the budget allocation for the waste dump and the different components. Can I get an update of the budgeted amount and what has been spent to date?

Mr Davoren—Yes.

Senator CROSSIN—Is that too hard?

Mr Davoren—No.

Senator CROSSIN—To maybe 31 December. Is the Parsons Brinckerhoff contract on budget?

Mr Davoren—Yes, I think it is. I think we have spent around \$900,000 and there is contingency in there for a further site.

Senator CROSSIN—I have one other comment I want to make. You might be aware that Senator Scullion in a television interview last Friday week said that he had a lot of confidence in the Northern Land Council and he knew that they were fairly well developed in the process of establishing a site. Is that a comment that you would concur with?

Ms Borthwick—As we said earlier, we have been asked to keep the nature of our discussions with the Northern Land Council confidential at this stage, so we would not like to comment on that.

Senator CROSSIN—So you could not tell me whether Senator Scullion's comments are true or false, accurate or inaccurate?

Senator Brandis—I get the feeling that the remarks you have attributed to Senator Scullion are inaccurate and a contextual representation of what he said.

Senator CROSSIN—It is a copy of the transcript of the website in front of me.

Senator Brandis—I do not think it is fair to ask witnesses to comment on an interview with which they are unfamiliar.

Senator CROSSIN—Thanks, Minister, but I am assuming you are familiar with it. It is on the ABC website. It is a transcript of the *Stateline* program. If you are not aware of it, you ought to be. I wonder whether that is an accurate or an inaccurate statement.

CHAIR—Nevertheless, I think it is unfair to ask officers to comment on statements made by a senator.

Senator Brandis—And the officer has already answered the question.

Senator CROSSIN—Senator Scullion also suggested that night that he thought there would be sites that are far better than the three Commonwealth sites. Is that a comment that this department would concur with?

Ms Paul—I do not think we can comment on that observation at this stage.

Senator CROSSIN—So Senator Scullion hasn't any idea what he is talking about, then, when he goes on television. Is that right?

Senator Brandis—Senator Crossin, you know that that is a foolish remark. Please do not offend the officers by using them as a vehicle to make cheap political points against a political opponent. If you have a sensible question, ask it.

Senator CROSSIN—It is very sensible. Obviously Senator Scullion has had no discussion with the department and—

CHAIR—Senator Crossin—

Senator CROSSIN—Sorry, Chair, I am speaking. You cannot confirm or deny whether his comments are accurate or inaccurate.

Senator Brandis—Rather than allow that somewhat dishonest remark to appear uncorrected on the transcript, let me say that that is not what the officer said. The officer said, as Senator Crossin knows quite properly, that they were unable to respond to the questions. They neither confirmed nor denied. They indicated, for perfectly proper reasons, that they were not in a position properly to respond.

CHAIR—Could I also indicate for the record that Senator Scullion last year had a great deal of discussion with the department and other interested parties on this matter. To say otherwise is a complete fabrication. So you have no more questions, Senator Crossin?

Senator CROSSIN—Well, I will just make the comment perhaps in reply that I do not see you busting out of your skin to actually defend his comments. Your silence reads—

Senator Brandis—Senator Crossin, if you have questions to ask Senator Scullion, no doubt you will avail yourself of your rights in question time, not embarrass officers to make third rate political points.

Senator CROSSIN—Thank you. I can see you are not jumping out of your skin to defend his comments, so thank you very much. That is good.

Ms Paul—We are very happy to answer any question. The point here is that we are not able at this stage, because of the request from the NLC, to answer this specifically.

CHAIR—That is perfectly correct, Ms Paul. Thank you for that.

Senator CARR—With the timeline for the establishment of the dump, was it anticipated that there would be an announcement by mid-2007?

Ms Borthwick—That was our original estimation, yes.

Senator CARR—Do you anticipate that you will be able to meet that timeline?

Ms Borthwick—It is unclear at this stage whether the government will be in a position to do that or not, depending on whether or not there is a further nomination.

Senator CARR—Are you working on the presumption that you will be able to meet that timeline?

Ms Borthwick—We are working on the assumption that we need to monitor the situation over the next short while to see whether or not a nomination will be forthcoming.

Senator CARR—Were the traditional owners of Muckaty Station invited to Lucas Heights?

Ms Borthwick—They went to Lucas Heights, as I understand it, on one occasion last year. I do not recall the precise time.

Ms Paul—We have discussed that here before.

Senator CARR—You might have done it, but you might have noticed that there are a few points that I would like to follow.

Ms Paul—Of course. I was not casting an aspersion that way. I was merely remarking that there would be some things on the record already. That is all.

Senator CARR—Yes, thank you very much. Is it the case that there have been discussions concerning employment at the proposed site?

Ms Borthwick—I do not recall. It has come up on a number of occasions whether or not there would be some job opportunities forthcoming after the facility has been constructed, but I do not recall the context of those discussions now.

Senator CARR—Senator Crossin has drawn your attention to the fact that I am coming back into this discussion. What was your anticipation in terms of infrastructure to be provided at this site?

Ms Paul—In what regard?

Senator CARR—You mentioned a road.

Ms Paul—Do you mean in terms of what infrastructure would be needed for such a site?

Senator CARR—Yes.

Ms Borthwick—It depends where the site is, obviously, as to what infrastructure would be needed or what additional infrastructure might be needed.

Ms Paul—So one of the things, for example, that Parsons Brinckerhoff is assessing is the existing infrastructure availability and so on.

Senator CARR—And how many permanent jobs are associated or proposed to be associated with this project?

Ms Borthwick—Mr Davoren can correct me if I am wrong. I think there would be limited job opportunities on an ongoing basis with the facility.

Mr Davoren—Some of the material there attracts obligations under the Nuclear Non-Proliferation (Safeguards) Act for the security of nuclear material so I think the facility would need to be guarded on a 24-hour basis. So there could be some guarding jobs—say, up to six.

Senator CARR—So there is security?

Mr Davoren—Yes.

Senator CARR—What other technicians would be required?

Mr Davoren—There would be occasional visits from monitoring staff and, when there was a waste disposal campaign, there would probably be quite a few technical people at the site and operational people.

Senator CARR—And they would not necessarily be locals?

Mr Davoren—I do not think they would. It would be the transport people and probably scientists from ANSTO. I think the opportunities for local people would be more on the guarding side and possibly construction.

Senator CARR—And how many do you think would that involve?

Ms Paul—There would be a construction phase too, of course.

Senator CARR—The security and the construction combined, what do you anticipate the total would be?

Mr Davoren—The above ground store is a fairly significant building. It could have a workforce—I am just guessing here on the basis of other projects—of, say, 30 people.

Senator CARR—What length of time do you anticipate it would take to construct?

Mr Davoren—About eight months.

Ms Paul—Presumably the number of jobs also depends on which site ends up being the preferred site and so on in terms of precisely the infrastructure that is required. My feeling would be that we cannot answer definitively at this stage but we will get closer to the answer as the sites become clearer.

Senator CARR—Any of the sites selected, the ones that have already been discussed, or an additional one will require road upgrades, won't they?

Ms Borthwick—I am not sure what the answer to that is.

Senator CARR—Or are you proposing to use rail?

Ms Borthwick—As I think we remarked earlier, Parsons Brinckerhoff will be making some assessment of the transportation options for the three current sites. So at the moment we do not know, but we are happy to take—

Senator CARR—Do you have an estimated cost of the project?

Ms Borthwick—Again, that would vary depending on where the site was.

Mr Davoren—We hope to get a lot more clear on that when we get the Parsons Brinckerhoff report, which will give us an indication of the engineering issues involved in constructing a design at the three sites that we are looking at.

Mr Irwin—No money has been appropriated for the construction stage at this stage for that very reason, that we would not be in a position to—

Senator CARR—Sure. Do you have a budget for this project?

Mr Davoren—Yes, we do.

Mr Irwin—To a point.

Senator CARR—What is the budget?

Mr Davoren—The budget for the investigation phase, which ends in 2008-09, is \$13 million. But the purpose of the current studies is to develop the budget for the actual construction and final licensing actions of the facility.

Senator CARR—So there will be an additional sum after that?

Mr Davoren—Yes.

Ms Paul—Yes. It is a long process in terms of all the regulation consideration.

Senator CROSSIN—In relation to the roads that Senator Carr asked about, all three sites, once you get off the Stuart Highway, are on dirt roads. Have you costed how much a road to each of the three sites would cost?

Mr Davoren—It is not clear that they would need to be extensively upgraded. We need the advice of ARPANZA, which will assess the safety of transport on the condition of the roads at our selected site. That will be part of the early part of the licensing process. But 2,000 cubic metres of this sort of radioactive waste—in fact, part of our inventory—was moved to Woomera and I do not think there were any road upgrades associated with that project.

Ms Paul—But we are not really quite at this stage yet, I do not think, are we? We are still waiting on Parsons Brinckerhoff in the first instance.

Senator CARR—If I understand it, the decommissioning of Lucas Heights itself will add considerably to the volume of material. You say there are 2,000 cubic metres in storage at the moment?

Mr Davoren—That is the Woomera material. That is the largest single component in the inventory.

Senator CARR—That is right. I understand that—I understand what it is, I know it is out of Fishermans Bend and I understand how it got there. The question is: with the Lucas Heights material, what is your total expectation of what capacity this facility will have to deal with?

Mr Davoren—Well, I think the low-level waste would be of the order of hundreds of cubic metres with a much smaller amount of intermediate-level waste. But we will get more advice on that as the decommissioning—

Senator CARR—You must know that now.

Mr Davoren—We do not know the exact details of the decommissioning project from ANSTO. That is a process that is just starting.

Senator CARR—Has the rail option been ruled out?

Mr Davoren—No. A rail option would be quite good if the rail were suitably adjacent to the selected site.

Ms Paul—We currently have not ruled anything out, because Parsons Brinckerhoff are still doing the first task, which is to give an assessment of each of the three sites.

Senator CARR—Thank you. I will put the rest of my questions on notice. Can we go to matters of cross-portfolio now?

[5.47 pm]

ACTING CHAIR (Senator Marshall)—We are going to move to outcome 1, drought assistance.

Senator CARR—No. We have to go to cross-portfolio.

ACTING CHAIR—It is cross-portfolio, so you have got your way. I welcome the officers to the table.

Senator CARR—Ms Paul, I had the opportunity to speak to you during one of the breaks about securing information concerning the committed expenditures and non-committed expenditures across all departmental programs. Are you able to assist me with that project?

Ms Paul—Yes, we are.

Senator CARR—How long do you think that would take?

Ms Paul—We are not sure. I did discuss it after you raised it with me. We think particularly the budget columns should be really quite fast, so we will do it as fast as we can. I am hoping it will not take too long. I do not think it is quite as simple as pushing a button, but we do have that information and we will pull it together.

Senator CARR—Is there any chance that we can get it before the end of the proceedings?

Ms Paul—No. I am sorry, there would not be. We will have to pull it from various sources.

Senator CARR—There has clearly been a problem in returning answers. Would you agree?

Ms Paul—The committee has all our answers bar one. The one is a question which involves details of every program—not just expenditure but descriptive information on every program in the department. That one also required the end-of-year financial results to be known, so that one, which I am told is coming up to almost 150 pages in response, should be with the committee within the month. But unfortunately it has just been such a massive task.

Senator CARR—It was put to me that 518 questions were taken at the DEST portfolio at the budget estimates last year, and 91 questions were provided to the committee by the due date. This is going back the full—

Ms Paul—That is going back a while. I would have commented at the time. We have had some discussion about that. As you know, this department in particular and the portfolio

overall take an enormous number of questions with an enormous number of parts. What I have tried to do since we talked with each other last time over cross-portfolio is at least make sure we have got them all in to the committee, which is an advance on, you might recall, where we were a couple of years ago.

Senator CARR—It certainly is. That is why I ask the question.

Ms Paul—We have pretty well done that, although obviously not all by the due date.

Senator CARR—I received a substantial answer to a question today at 10 o'clock.

Ms Paul—Sure.

Senator CARR—I do not know how I am supposed to be able to process that, given that we are engaged in this discussion.

Ms Paul—I appreciate that. At the supplementary estimates, the portfolio took 239 questions with 1,000 parts. To be honest, I think we have been affected by the Christmas period a bit, so I apologise for some of these answers coming in so close to time. But most of them came in earlier and the committee does have all of them bar that one, which I have described.

Senator CARR—When do you think we can receive the answer to this particular question? It is quite important and I would hate to have to wait.

Ms Paul—Is that the table of expenditure?

Senator CARR—The table of expenditure.

Ms Paul—The one you gave me earlier?

Senator CARR—That is the one I am interested in.

Ms Paul—As I say, we think we have the information but it is a matter of pulling it together. We will certainly try to do it by the due date when these questions are—

Senator CARR—That is what my concern goes to. The due date is when?

Ms Paul—I do not think it has been set yet, probably.

Senator CARR—Yes, it has.

Ms Paul—We will do our best.

CHAIR—They are to be lodged with the committee by 30 March.

Senator CARR—That is a fair while away. I was hoping to get this by the end of the week.

Ms Paul—I think that would be difficult, but we will certainly do our best to get it to the committee as soon as we can.

Senator CARR—Does it have to go through the full process of approval and therefore be held up to 30 March?

Ms Paul—Not necessarily. If we can get it done quicker and it is actually not too hard—

Senator CARR—It is not a trick question. It is a straightforward request.

Ms Paul—No. I am giving you a straightforward answer.

Senator CARR—Yes. These are straightforward answers.

Ms Paul—We spoke a couple of hours ago. We have not had a chance to go back and interrogate our system.

Senator CARR—I ask this because I asked a similar question at the industry estimates. The information was provided quite rapidly, so I know it can be done.

Ms Paul—Yes. We will certainly attempt to do the same.

Senator CARR—We will be finishing Friday? Is there a spillover?

CHAIR—No. Not for this committee.

Senator CARR—There is not?

CHAIR—No.

Ms Paul—Could I venture to ask if they have as many programs as we do?

CHAIR—No.

Senator CARR—You never know your luck.

CHAIR—No, you don't, Senator Carr.

Senator CARR—That is my point. I would like to get it as quickly as possible. Has the list of consultancies for the 2005-06 annual report been completed?

Mr Kriz—Are you asking about the publication of the annual report?

Senator CARR—I am asking for the list of consultancies for the current year, 2005-06, in the annual report. Has that been concluded?

Ms Paul—Yes. It is in our annual report.

Senator CARR—Are you able to give me a year-to-date figure, or is that not possible?

Mr Kriz—A year-to-date figure on what?

Senator CARR—On consultancies.

Mr Kriz—Numbers?

Senator CARR—I have a question number here. It is E627.

Mr Kriz—I can give you numbers until 31 January 2007.

Senator CARR—I would like a table, please.

Mr Kriz—A table of?

Senator CARR—Consultancies up until that date, with the PRN—the normal table that we have used here for many, many years.

Mr Kriz—We can update it from the annual report date—

Senator CARR—Can you update that table, please, to the 31st.

Mr Kriz—to the end of the year, the 31st.

Senator CARR—If it is 31 January—

Mr Kriz—Well, the figures that I have here are to 31 January. We can do them to 31 January.

Senator CARR—Thank you. How much money has been allocated in the current financial year for advertising?

Mr Kriz—I will hand over to my colleague, Ms Pearce.

Ms Pearce—Are you talking about the overall figure for the entire agency?

Senator CARR—Across the portfolio.

Ms Paul—Across the portfolio outside the department?

Senator CARR—This department.

Ms Paul—For this department for 2006-07?

Senator CARR—Yes.

Ms Paul—Okay. We will just check whether we have it. I think the only significant advertising this financial year, year to date, is the Skills for the Future college career advice campaign, which we put on the record last time here. We are happy to do so again. We can give you those details, or we can set it out in a table on notice if you prefer. But there is nothing beyond that.

Senator CARR—Thank you. I am seeing some ads at the moment on employer incentive programs. They are running at the present time. Is that on top of that, or are they the same ones?

Ms Paul—I think it may be part of the campaign if it is the same ad. Has it got the song in it?

Senator CARR—I am going to really shock you here and tell you that I did not take that much notice other than seeing ‘the Australian government’ written all over it and thinking, ‘Yet another election ad coming on.’ It moved me to ask this question.

Ms Paul—I guess the simple answer is that in our portfolio there are a single set of ads at the moment which go to the areas that I named a minute ago.

Senator CARR—Thank you. This one was actually about incentive payments as of 1 June for mature age—

Ms Pearce—To take on mature age workers?

Ms Paul—Yes. That is part of it.

Ms Pearce—That is part of that program.

Ms Paul—Yes.

Senator CARR—They are the only ones you are aware of?

Ms Paul—Yes.

Senator CARR—Are you anticipating any other advertisements?

Ms Paul—Not at present. But I am talking on a year-to-date basis.

Senator CARR—There's nothing in the pipeline at this point that you are able to advise the committee of?

Ms Paul—That is right.

Mr Kriz—Perhaps I can be helpful to the committee in relation to these sorts of issues.

Senator CARR—You are always helpful, in my experience!

Mr Kriz—This department is required, as are other departments, to publish annual procurement plans which appear on our website which indicate what sorts of purchases we expect we will be making in the public arena. So every department is required to do this under the new Commonwealth procurement guidelines. That information is public. That might give you some ideas.

Senator CARR—Thank you very much. That is very useful. With regard to contracts, can you indicate to me in the calendar year 2005 how much money was paid to ACCI and the state chambers of commerce by this department?

Ms Paul—Which year, I am sorry?

Senator CARR—2005.

Ms Paul—I think we have answered that. I do not have it in front of me, but haven't we answered that on notice?

Senator CARR—Have you?

Ms Paul—I am pretty sure. I will check that, but I think we have already done that one.

Senator CARR—Could you update that for me?

Ms Paul—Certainly.

Senator CARR—And how much was paid to AIG and the NFF.

Ms Paul—Yes. I think that would be an update of a previous question.

Senator CARR—Thank you. The expenditure for DEST employees has been revised up for the current year by 11.5 per cent. Can you explain to me why that is necessary?

Ms Paul—The growth in the department, as we have discussed before—indeed, there is a question on notice that goes to this too—really arises from two facts. One is the continuing flow-on from some machinery-of-government changes and the second is the flow-on from new initiatives. So we have unpacked that before. We are happy to provide that again. Basically, it comes down to those two factors.

Senator CARR—I see. This is E564. I have a copy of that here with me. Is that the one you are referring to?

Ms Paul—I am not sure. I would need to get a copy of it, but I know that we have answered it?

Senator CARR—Ms Pearce, is that right?

Ms Pearce—That is correct. E564 relates to the increase in total staffing levels. That one, yes. We have answered that.

Senator CARR—So how many additional staff are we talking about here? Is it 255? Is that right?

Ms Pearce—That is correct.

Senator CARR—How many additional staff are due to machinery of government and how many are down to budget initiatives?

Ms Pearce—If you see page 2 of that, you will see the answer. Question on notice E564 on page 2 has the breakdown.

Senator CARR—This is a surprise to me. I see, yes.

Ms Pearce—But the remaining number is something like 12. I have not added it up, but it is a small number. That is the remaining ASL across the departmental programs. But the rest is spelt out.

Senator CARR—Thank you very much. I am clear about this—there is only one outstanding answer? Is that what you are saying to me?

Ms Paul—That is correct.

Senator CARR—Thank you very much. I might turn to 3.1. Is that where we go now, to research?

CHAIR—Yes. That is the next one. It is Innovation and Research Systems Group.

Senator CARR—That goes to higher education. Is that the way we are going?

CHAIR—Yes, that is correct.

Senator CARR—Dr Arthur, I might ask you some questions regarding the RQF. The ARC have made a number of statements concerning the RQF. I wonder if you could respond to those matters that have been raised by the ARC. I might go through these questions. They were particularly concerned about the impact of the RQF in terms of the eight elements which ought to be included. Have you had an opportunity to review those papers?

Dr Arthur—I did not quite catch the full detail of that question.

Senator CARR—Let us just go through it. My questions regard the paper dated October 2005. I might go to that one.

Dr Arthur—Indeed.

Senator CARR—What do you say to their concerns, for instance, about the matrix being used? They say:

...this matrix will deliver inadequate and inaccurate information about the overall quality of research in Australian universities.

Dr Arthur—If I hear you correctly, they are comments made in 2005 at the stage when the process was under the guidance of the expert advisory group. There was a large amount of detailed work done addressing the development of the preferred model for the research quality framework in the course of 2006, leading obviously to the eventual government decision to proceed with the model, including on those questions. The ARC was involved in those processes. There were specific working groups looking at a number of those questions. I and Ms Harvey can probably go through a number of the tos and fros on that. All I can say is

that they were comments made at a particular time. They were very helpful, as all the comments from the ARC were, in bringing forth matters to be considered, which were considered and dealt with in detail in the further processes that occurred.

Senator CARR—I thought you might say that. The criticism was based on an old paper. More recently, though, the question of the panel structure has been raised by the ARC. Do you agree that there is still a problem there as far as the ARC is concerned?

Dr Arthur—I cannot speak for the ARC. The panel structure, with one exception, has not changed greatly from the time of the expert advisory group. The ARC, in particular Professor Hoj, along with the NHMRC were in fact the major people who provided us with the recommendations which led to the panel structure which was eventually recommended by the expert advisory group. The major change I referred to which has occurred since then is that one of the panels—there were 12—has been divided into two after further commentary provided by the stakeholders. As I say, I cannot speak specifically for the ARC. Perhaps if you were to cite exactly their concern and the date of that, I could be more helpful.

Senator CARR—It is a whole series of things which obviously we have to put to the ARC, given that their chief executive was not here today.

Dr Arthur—Indeed.

Senator CARR—It is probably more fruitful if I go, then, to some of the comments that are reflected in more contemporary work by the Group of Eight along similar lines. Dr Arthur, you would agree that the Group of Eight have been vociferous in their criticism?

Dr Arthur—The Group of Eight have, like most stakeholders in the process, been very helpful and very constructive in trying to put forward comments which will lead to a good model.

Senator CARR—They argue the case in the document outlined in the 2006 paper with regard to the difference between how you measure the excellence pool and the impact pool. How will they be separated?

Dr Arthur—The government has not yet made a decision on that issue. They have made a decision that there will be separate scores for quality and impact. Those scores will remain separate and both will have an impact on the eventual result for universities in terms of the status and the view taken of the quality and impact of their research and on the funding that will be applied for, to which the RQF will be applied. However, the government has not made a decision about the specifics of how that will apply. It has not made any decision about the specifics about how the RQF will affect funding for universities.

Senator CARR—So how far will the RTS funding be affected or driven by the so-called impact measure?

Dr Arthur—Overall, the government has decided that the RQF will in general terms influence 50 per cent at least of the RTS funding. But, beyond that, on the question you specifically ask about the relative impact of quality and impact—excuse the circularity there—no decision has been made.

Senator CARR—So what is the \$87 million the government recently announced to be used for?

Dr Arthur—The \$87 million reflects the costs of developing and implementing the RQF both in terms of costs to the department and costs to the higher education sector.

Senator CARR—Over what length of time will that money be spent?

Ms Harvey—Over four years: over the forward estimate years.

Senator CARR—Is it anticipated that these assessments will be undertaken every four years? How often will we be going through this exercise?

Ms Harvey—I think at the moment the government has indicated that they would be looking at doing an assessment every six years.

Senator CARR—Six years. So there will be a need for another allocation of money, presumably, as we run into the second round?

Dr Arthur—The allocation of funds in the future will not be of the scale required for the first iteration of the exercise. The government has made a decision to apply, as far as it is going to be possible, a technological solution to the data gathering and assessment. A large element of the costs in the department, and particularly costs in universities, is to establish an electronic infrastructure which will be available in the future and, indeed, which will greatly benefit a number of other issues in research. The particular part of funding that is irrelevant there is a significant amount of funding—Ms Harvey can provide the detail—for establishing a network of digital repositories in universities which will enable the electronic capture of research and, indeed, the electronic provision of that research to DEST.

Senator CARR—So will each university be required to maintain its own repository or will there be a centralised repository? How will that work?

Dr Arthur—That is yet to be determined. There will be detailed consultation with the sector on exactly what would be the most efficient model. But funding has been provided which will enable that to occur.

Senator CARR—So what are the list of issues yet to be resolved with regard to the implementation of this RQF?

Dr Arthur—There certainly are a whole range of issues.

Senator CARR—Could you tell me what they would be?

Dr Arthur—I can give you some of the more important ones, but it will not be an exhaustive list. The government has made decisions in terms of the broad criteria which will apply to the rankings of quality and impact. However, there is a lot of detailed work to be done to make those appropriate for the various discipline clusters that the panel will address. One of the most immediate steps we are now undertaking is a process of appointing the various discipline panels that will do the detailed work on the criteria both for the evidence portfolios and the criteria for reaching judgements linking to scores across the various discipline clusters. That is one large set of work. Another very large set of work is, as I indicated, the process work of establishing IT systems within the departments that can support the decision-making processes that will be required and that can work within the universities to both gather the data and establish, where appropriate, electronic infrastructure to manipulate those pieces of information.

Senator CARR—There are only two issues outstanding.

Dr Arthur—They are the two most important ones. There are a whole range of other ones. I can go on at some length.

Senator CARR—I am very interested in this.

CHAIR—Dr Arthur is trying to give you concise, succinct answers.

Senator CARR—Dr Arthur is always concise.

CHAIR—And succinct, I am sure.

Senator CARR—And succinct. But if you would like to take that on notice, I would be delighted to have the full and comprehensive list of unresolved issues with regard to the RQF. It may be that you will need until 31 March to complete that.

Dr Arthur—It is quite possible. What we can certainly provide you with is issues that we have identified now. As with any complex implementation task, there will be issues that will arise as we go through that we have not been able to specify now. We can certainly provide you with an indication of the significant issues that are there.

Senator CARR—But it will not be a comprehensive list?

Dr Arthur—At the moment we have, obviously, implementation plans. We can certainly, without going into the detail of that, provide you with the key issues that we have. It is normal planning processes identified that will need to be addressed to appropriately carry forward this very large project.

Senator CARR—Dr Arthur, can you indicate to me where I might find any international evidence about the way in which this impact proposal will work?

Dr Arthur—You will not find international evidence on the way we are doing this particular element of it because what we are doing with impact, as the minister has made quite clear in her announcements, is new. It is not new to try to assess the impact of research in these sorts of exercises. The two major exercises that occurred to date in this area in the UK and New Zealand certainly considered the impact of research in arriving at judgements of the quality of research. What is new in this exercise is the attempt to reduce the judgements of the impact of research to a separate uniform scale from the judgement of quality. That is technically a new task. Certainly it is technically going to be a challenging task.

Senator CARR—Yes. Dr Arthur, the technical challenge is different for the sciences and for the social sciences and for the humanities. Would that be true?

Dr Arthur—No. I do not think I would agree with that. It is essentially the same challenge. Both for quality and for impact there are going to be differences in the evidence portfolios that will be relevant and in the fine detail of criteria for that. As in any such assessment exercise—and at a technical level this is just another large assessment exercise similar to that which is carried out in a whole range of activities around the world—the technical processes that are involved are essentially similar across the subject matters.

Senator CARR—Who designed this scheme?

Ms Paul—It has been designed with the help of these experts and consultative processes over a long period of time.

Dr Arthur—With a very, very large number of inputs. We can provide you with the detail, but it is all on the website. If you look at the numbers of committees, the members of those committees and the permission processes, you will see it has been an extremely iterative, collaborative process.

Senator CARR—I see. Of doubtful parentage.

Dr Arthur—I do not think that is in any way what I said.

Ms Paul—I was going to add that we have had, of course, very close regard to what has happened overseas. Through close regard to the 20 years of experience in the UK in particular and experience in New Zealand and then working with this range of experts through the expert advisory group and then the development advisory group and consultations much broader than that, I believe we have come to an approach to measuring excellence in research which is as streamlined and as collaborative as it possibly could be.

Senator CARR—So you do not agree with the criticism that it would be labour intense?

Ms Paul—It will involve work by universities, particularly in the first instance, which is what the funding is for. But we believe the system that, through all these processes, we have come to in this country will actually be more streamlined than in other places. That is probably all I need to say. There has been an enormous amount of work put into—and will continue to be, as Dr Arthur says—making it as straightforward as possible. The use of the digital repositories, for example, is a really good example of that. The use of digital sharing of research papers and so on will benefit universities in a whole range of ways beyond just the RQF.

Dr Arthur—I might add to your comment about doubtful parentage. It is important to note that all elements of this process have been extremely public. The members of the committees that have assisted in this, the committees that made the formal recommendations to the minister—the expert advisory group and the development advisory group—are also public. The actual recommendations they made have been made public, as have the government responses to that. So at every step, if you wish to look at it in detail of where the particular issues came from, we have been careful in the extreme to make sure that is all fully transparent.

Ms Paul—Perhaps it is not doubtful parentage. It is broad parentage, because so many have had so much input over a period of time.

Senator CARR—I see. Broad parentage. And the criticisms have also been quite broad, haven't they?

Dr Arthur—This is a very important exercise affecting potentially large amounts of university funding. The universities should take this exercise very seriously and should engage, as they have done, robustly in putting their views forward to make sure that we get the best possible result.

Senator CARR—I have on page 15 of the additional estimates statements an indication of the line item research quality implementation. I wonder if you could give me on notice a breakdown of what these figures will be spent on across the forward estimates.

Dr Arthur—Certainly.

Senator CARR—Ms Paul, on that other question, I take it you will be able to tell me how much of the money has actually been committed.

Dr Arthur—If I could make a comment: the money that was announced by the minister was all, as I said, in the forward process. None of that money is currently flowing. The money that has been spent to date was two separate amounts of money provided, first of all, in the announcements for Backing Australia's Ability. There was an amount of \$2.8 million. Am I right?

Ms Harvey—Yes.

Dr Arthur—That was for the initial development of the RQF.

Ms Harvey—And the accessibility framework.

Dr Arthur—And the accessibility framework. There was a further amount of funding in the last budget for further development of that of \$3 million. So it is \$5.8 million to date. The money the minister has announced is for the full implementation and will start to flow from 1 July.

Senator CARR—I see. So none of that money has been allocated?

Dr Arthur—No.

Senator CARR—Has all of the money from the last two tranches been spent?

Dr Arthur—Not yet. It will be before we come to the end of this financial year. But not as yet.

Senator CARR—How much remains?

Dr Arthur—We will take that on notice. We will find a date, obviously, and report to you from that date.

Senator CARR—Page 11 refers to the Museum of Economic Botany refurbishment. What is that for?

Ms Paul—That is in the science arena. I might look to Mr Cook to comment on that.

Mr Cook—It is a museum which was established in South Australia—I believe it is physically located in the botanic gardens—about 150 years ago to collect botanical specimens, obviously, which were regarded as being of particular economic significance. In recognition of the long standing of this particular museum—its 150th anniversary—and the value of the collection, the government took a decision to provide \$1 million, as you see there, to assist with the refurbishment and updating of the museum with an eye to making it more attractive for students.

Senator CARR—So it is a private museum?

Mr Cook—No. I understand it is a public museum.

Senator CARR—So it is a South Australian government facility, is it?

Mr Cook—I would need to check. I do not know whether it is.

Senator CARR—Has the Commonwealth got any ongoing responsibility for the museum?

Mr Cook—No.

Ms Paul—I think the Commonwealth interest is in the science and education role it plays. For example, it has been apparently popular with school groups and so on but has not been able to be opened recently because it has been so run down.

Senator CARR—I see. So what was the process by which you have given \$1 million to this museum?

Ms Paul—It was a government decision taken through the additional estimates process.

Senator CARR—A government decision. Was there a grant application process?

Ms Paul—I do not believe so.

Senator CARR—So was it a minister of science decision?

Ms Paul—It was a government decision.

Senator CARR—Did the matter go to cabinet?

Ms Paul—It has been considered by government because there has been a decision in the additional estimates context.

Senator CARR—I am just wondering how you get into—

Ms Paul—It was a budgetary process.

Senator CARR—Did they apply for the money?

Ms Paul—I am not sure, actually. I would probably have to take that on notice. But certainly in the context of budgetary type considerations the government made a decision.

Senator CARR—There are lots of good museums around the country. I am just wondering whether they all got a chance to seek additional support.

Ms Paul—My feeling would be that this museum appears to sit in a unique position of being in its 150th year and unfortunately run down, and \$1 million will bring it into shape so that it can once again be enjoyed by schoolchildren and others.

Senator CARR—I just want to know what criteria were used to allocate \$1.1 million of public money.

Ms Paul—I think this was a decision of government based on this unique circumstance of being in the 150th year and being unfortunately not able to be used to its full extent.

Senator CARR—Does a museum director ring up the Minister for Finance and Administration?

Ms Paul—I cannot answer that.

Senator CARR—How did it get into the process? I am trying to establish that. How do you get a government decision to allocate \$1.1 million of public moneys outside any established program?

Ms Paul—Presumably the need for this and the case for this unique proposition was made clear to government and government took a decision.

Senator CARR—How was it made clear to government?

Senator Brandis—I think we will take these questions on notice.

Ms Paul—We are happy to take it on notice.

Senator CARR—I would like to know about this one-off grant.

Ms Paul—It is a grant in recognition of—

Senator CARR—It is a favour.

Ms Paul—It is a grant in recognition of this 150th anniversary and a particular physical need for which \$1 million has been allocated.

Senator CARR—And how many other museums will have access to government largesse?

Ms Paul—This is not a program, as we have said. And as I have said now several times, this museum found itself in this unique position, so it is not really relevant to think about other museums in this way.

Senator CARR—The Fulbright Commission has received an additional amount of allocation. How did that arise?

Ms Paul—Could we answer that under International? Would that be possible?

Senator CARR—I do not mind as long as I get an answer. And there is also the University College in Dublin.

Ms Paul—Likewise.

Senator CARR—It is \$1.5 million for a chair of at least Australian history.

Ms Paul—Yes. That is right. I would be happy to answer that in International.

Senator CARR—Thank you. Thank you very much. I will put the rest of my questions on notice for the research division, given the hour.

CHAIR—As it is within five minutes of the allocated dinner time, I think we will move to that now. After the evening meal break, we will go on with higher education. Thank you very much.

Proceedings suspended from 6.25 pm to 7.32 pm

Higher Education Group

CHAIR—I welcome Ms Paul and the officers from the Higher Education Group. I understand that Senator Carr has some questions.

Senator CARR—Ms Paul, question No. 3995 concerned \$4.577 million to be spent on the Carrick awards for each calendar year to 2009. What is the projected expenditure for the Carrick Institute?

Ms Paul—I will ask either Mr Walters or one of his people to answer.

Ms Baly—The annual grant for the Carrick Institute is \$26.375 million.

Senator CARR—So that is per annum out to 2009?

Ms Baly—That was 2006. I am not sure if I have got the forward estimates with me. I do not have the forward estimates with me. It would be a similar figure.

Senator CARR—Why? It is pretty standard sort of question. Why wouldn't you have that in your folder?

Ms Paul—That is not one we would necessarily anticipate, but we are more than happy to take it on notice.

Senator CARR—Where do I find it in the budget paper?

Mr Walters—If you turn to page 251 of the PBS there is a separate section on the Carrick Institute which gives all the details. The forward estimates are given on page 264 of the PBS for 2006-07. Page 264 gives you the figures and page 251 is the start of the section which is devoted to the Carrick Institute.

Senator CARR—Can you tell me what the forward estimates figures for the Carrick Institute are?

Ms Baly—The figure for 2007-08 is \$27.528 million, the figure for 2008-09 is \$28.072 million and the figure for 2009-10 is \$28.624 million.

Senator CARR—What is the purpose of this institute?

Ms Baly—The purpose of the institute is to promote quality learning and teaching in the higher education sector. It was announced as part of the Backing Australia's Future package.

Mr Walters—The precise terms are, 'To be the national focus for promoting and advancing learning and teaching in Australian higher education and acknowledging excellence in learning and teaching.'

Senator CARR—And it is a private company?

Ms Baly—No, it is not a private company.

Senator CARR—What is its governance arrangement?

Ms Baly—Its governance arrangement is that it is a company, with the Minister for Education, Science and Training being the sole member of the company.

Senator CARR—So it is a public company—a government company—and it is funded by way of grants from the department.

Ms Baly—Yes, that is correct.

Senator CARR—Does it raise revenue from any other sources?

Ms Baly—No.

Senator CARR—How many students does it have?

Ms Baly—It does not have any students. It does not provide education and training as such. It is an institute which will do some research and promote learning and teaching within the higher education sector. It is not actually an awarding institute.

Senator CARR—If it is a research institute, why isn't it in the research division?

Ms Baly—It is not, strictly speaking, a research institute. It will undertake research in respect of learning and teaching, but its activities are to promote excellence in learning and teaching within the sector.

Mr Walters—Perhaps I could explain. They have five strategic priority areas of operation. They have a grants scheme, which is \$28 million over three years and that covers three programs to raise the profile of teaching, namely, a priority projects program, a competitive grants program and a leadership capacity-building program. Then it has discipline based activities, for which it has \$11.5 million over three years. Those activities are about providing opportunities for the dissemination and application of good practice. Then it has a resource identification network, which is \$7 million over three years, and that provides a central coordination repository as they call it to help the sharing and adoption of good practice in learning and teaching. Then it has got a fellowship scheme, which is \$7.5 million over three years. That is to support national and international fellows to undertake programs to support the institute's objectives. Finally, it has the Carrick awards for Australia university teaching, replacing the Australian awards for university teaching. They have \$11 million over three years for that. You have probably been to the award ceremonies for that in the past. There are three different categories of those awards.

Senator CARR—Those awards used to be run by the department.

Mr Walters—That is right.

Senator CARR—They have now shifted them off to this body. I cannot quite follow, though. It has fellows and various other research grants. Why is it not a research institute?

Mr Walters—Because it does not just do research. It is about disseminating good practice, you see, as well as carrying out a bit of research. They provide grants in order to do some investigation, and that is intended to support the idea of developing best practice, developing networks about best practice and disseminating the results of that.

Senator CARR—It is listed here as a purchaser provider. Why have you chosen to use this particular method of establishing an institute? Why isn't it run through the department?

Mr Walters—That goes back to the Backing Australia's Future package. If you recall, part of the Backing Australia's Future package was about raising the status of teaching and learning, so therefore we had the learning and teaching performance fund. That was balanced by having the new institute, which was to take some of these issues outside the department, put it in the hands of an independent organisation with a chair of high international standing—who is Professor John Hay—and to give it that degree of independence in order to get the support of the sector and elevate the status of teaching and learning as an issue within the sector. That was the purpose of it.

Senator CARR—Thank you. I will come back to that. In regard to university funding, are the arrangements for 2007 still being negotiated?

Mr Walters—No, for the 2007 core funding there are obviously a lot of different sources of funding. You have already been talking about the research funding. Looking at undergraduate places, we have a funding agreement process during the course of 2006 during which we look at the outcomes of recruitment rounds for students for 2006—those institutions

that reckon that they might for example not have filled places and those that are over—and we negotiate a new funding agreement which allocates places between the different points in the cluster funding. In some cases, we have meetings with the universities and in some cases we do it by correspondence or on the phone. Then Mr Manns prepares new funding agreements for each of the universities and I sign them off. They went out to the universities during November/December mainly. Recently, we have just issued a few revised ones because we had a few places given up by one university which were reallocated. That is the process. It is all run off documentation called a funding agreement. That regulates funding for 2007. In some instances, we will get changes during the course of the year if people notify us, for example, that they have changed students between clusters and they want to talk to us about getting a bit more or giving up a bit, and so we get minor adjustments during the course of the year. But basically that is the way it operates. We sign a funding agreement with each of the universities, hopefully before the start of the new calendar year.

Senator CARR—Is it the case that there are any universities that have yet to complete those negotiations?

Mr Walters—No.

Senator CARR—So everyone—

Mr Manns—As Mr Walters mentioned, one university has very recently decided that it would like a slight reduction in its funding agreement for the current year. We have not yet finalised signing off on its revised agreement.

Senator CARR—Which university is that?

Mr Manns—The University of New England. We have almost finalised the reallocation of all of those places to other universities in New South Wales.

Mr Walters—As I said, it is not a question of us not having finished the negotiations in any substantial sense; it is just we have got to tidy up the paperwork, basically.

Mr Manns—It is just for those few last places. The funding agreements have been tabled in parliament, as is required by the act.

Senator CARR—So they have all been tabled?

Mr Manns—Yes, they have, with the exception that we will be doing a few revisions.

Senator CARR—Are you able to provide me with the funding allocations for each of the higher education providers in each of the funding clusters?

Mr Manns—That detail is in the tabled funding agreements.

Mr Walters—That has already been tabled in parliament.

Senator CARR—Are you able to give me the forward projections on the institutional funding arrangements?

Mr Walters—Effectively, the funding agreements contain the projections for this year because they are done on the—

Senator CARR—Yes, but do they do it for the out years?

Mr Manns—They are annual agreements.

Senator CARR—They are only annual.

Mr Manns—Yes.

Senator CARR—Do you have any forward projections at this point?

Mr Manns—Not in terms of the cluster profile for individual institutions. They come to us, as Mr Walters explained, on an annual basis and discuss with us the shifts they would like to make year on year.

Senator CARR—In regard to the announcement that the minister made—in fact, the release of the discussion paper on funding clustering and funding model—when is the review due to be completed?

Mr Walters—We have said that we will make a report to the minister by May.

Senator CARR—What is the process of review? How does it work?

Mr Walters—The process of review is that we have called for submissions. The deadline for those is 26 February. We put something out in the minister's announcement on 19 December calling for submissions. We are undertaking face-to-face consultations with the sector in capital cities, with the exception of Tasmania and Darwin, where the local universities are sending representatives to other consultations. We are starting that next week. I will be doing that in Perth on Monday and in Adelaide on Tuesday, and then we are doing the others over the next few days. We have an independent consultant who is going to assist us to facilitate those oral consultations. Then we have also got an external consultant company, Access Economics, that has been engaged to assist with the examination of technical issues associated with the first phase of the review. Six universities have agreed to help us with that, and Access Economics, together with our officers, will be visiting them. They have started already in fact. If you would like to know which ones those are, they are the University of Melbourne, the University of Adelaide, the Queensland University of Technology, Murdoch University, Charles Sturt University and the University of Tasmania. We selected them to represent universities of different sizes and different parts of the sector—

Senator CARR—Different types, yes.

Mr Walters—and to give a spread around the states.

Senator CARR—Who is the consultant that is helping you?

Mr Walters—We have two consultants. One is Access Economics and they are doing the technical work and looking at the evidence which these universities can help to produce. We also have Sue Johnston from Phillips KBA, who is helping us with the facilitation of the oral consultation sessions where we are going out to the states.

Senator CARR—What is the cost of the consultancy?

Dr Perkins—For Dr Sue Johnston's consultancy, the cost was \$33,275 including GST. The contract for Access Economics is worth \$65,340 including GST.

Senator CARR—Thank you. I take it you are also taking submissions from individual universities?

Mr Walters—That is right.

Senator CARR—How many have you received and where have they come from?

Dr Perkins—We have only received two submissions so far. The closing date for submissions is 26 February, as Mr Walters mentioned. The submissions we have got so far are from Swinburne University of Technology and from the Australian Mathematics Institute.

Senator CARR—I am familiar with the Mathematics Institute's position. So you have only had two responses?

Dr Perkins—Correct.

Senator CARR—There has been a fair bit of public discussion, hasn't there?

Mr Walters—I have seen comments in the media. That is right.

Senator CARR—In particular, the true costs of a degree is not reflected in the funding formula any more.

Mr Walters—That is the purpose of the exercise, really: to see what evidence people can come up with.

Senator CARR—Is part of the review aimed at considering options to increase the amount paid for by the Commonwealth's supported places to actually better reflect the cost of running those programs?

Mr Walters—Obviously, the purpose of the review is to have a look at what evidence people can come up with in terms of the cluster funding model and in terms of the values which are set in that model for the cost of delivering individual courses. The government will no doubt review the evidence that comes in and make its own mind up as to whether any action is required as a result of that.

Senator CARR—On 2 January I was watching the *7.30 Report* and I noticed that the minister was advising anyone listening that the review would consider shifting maths and science courses out of their current funding bands. I understood that correctly, didn't I?

Mr Walters—I would not like to say that. I do not recall that particular—

Senator CARR—You did not see the program?

Mr Walters—I probably did at the time, but I cannot remember exactly what the minister said. I have got no reason whatsoever to doubt you of course.

Senator Brandis—It is no more Mr Walters' job to comment on what the minister said than it is his job to comment on whether you understood her correctly, Senator Carr.

Senator CARR—Mr Walters and I have known each other for a fair while and I have found that it saves a lot of time if we get right down to tintacks and agree on the foundations of any proposition. I am putting to you Mr Walters that the minister is claiming that this review will consider moving maths and science out of its current funding cluster into another one. What I would like to know is, given the importance of this position, what work is being done on advancing that idea that the minister has so courageously put to us?

Ms Paul—I think Mr Walters has just described the work, which is a range of consultation and consultancies which will then be pooled together and considered by the minister and so on.

Senator CARR—When did those two submissions arrive?

Mr Walters—I only saw the Swinburne one this morning.

Dr Perkins—The Swinburne one arrived this morning.

Senator CARR—So the minister on 2 January was able to establish that this would be a submission that would come forward.

Senator Brandis—Nobody said that, Senator Carr. That is what you are asserting.

Senator CARR—I just wondered how it is that she was able to anticipate the consultations in this way.

Ms Paul—We do not have her words in front of us.

Senator Brandis—I do not think anybody—certainly not the officials—can be expected to comment on your characterisation and paraphrase of what the minister may or may not have said or what you may or may not have understood her to say, accurately or not.

Senator CARR—The Mathematics Institute most definitely have advanced that proposition. Are you aware of that, Mr Walters?

Mr Walters—I think the Mathematics Institute advanced the cause of the mathematics academic exercise, as you would expect.

Senator CARR—More than that: they specifically advanced the notion that there should be a shift in the particular band that mathematics is currently in.

Mr Walters—Dr Perkins says that she thinks that what they said was that they wanted more money, and I think that is a reasonable characterisation.

Senator CARR—I do not know. You will not lose any sleep on that proposition. I would like to know what work the department has done on the cost of that proposition.

Mr Walters—I can answer that, because what we are doing is going with the consultants which I described earlier to six universities specifically to see what they can produce in terms of costing information. We are also going around and having oral consultations and collecting evidence there. The job of Access Economics is to go out and analyse the material that is coming in from those consultations and to help us to prepare a report. That is honestly where we have got to at the moment. We are still very much in the early stages of organising that exercise, and frankly our hands are full just trying to do that.

Senator CARR—I can see that. That is quite apparent to me. Are you able to confirm that there has been no assessment within the department at the moment as to the cost of that exercise of shifting maths out of its current band?

Mr Walters—I am not aware of anything specifically that we have done in response to that submission.

Dr Perkins—When we go around to consult with the universities with Access Economics we are asking them about maths as well as a whole range of other disciplines in terms of how they think their relative costs sit within the clusters, or in other words, the disciplines. We are asking them whether it is like with like within cluster or whether there is one discipline that belongs elsewhere.

Mr Walters—The easy part of this exercise would be to cost moving a particular subject from one cluster to another. That is a fairly simple arithmetic exercise. The difficult part of this is getting some evidence from the universities that teaching maths, for example, costs a lot more than teaching something else. That is really the guts of what one is trying to get into in this exercise—to see what evidence there is.

Senator CARR—Has the minister asked you to prepare any costings on this particular matter?

Mr Walters—Not at this stage I don't think. The exercise is all about trying to find what the cost of the teaching is, not what the cost to us would be moving things from one cluster to another. We can easily do that. The difficult part is discovering what the justification for making a change would be, and that is where we have not got the evidence at the moment. We are still in the infancy stages of going out and consulting.

Senator CARR—I take it all universities have now complied with the requirements of the higher education workplace relations provisions

Mr Walters—Yes, that is correct.

Senator CARR—So there will be an increase in their base funding rates?

Mr Walters—They all qualified for an increase of another 2½ per cent, making a cumulative 7½ per cent from 1 January.

Senator CARR—How much is the current funding amount for this program?

Mr Walters—I take it that the program you are talking about is the base grant for the Commonwealth grants scheme.

Senator CARR—The higher education workplace relations requirement.

Mr Walters—The higher education workplace relations requirement is not a separate cost. Compliance with both the workplace relations requirements together with the national governance protocols was a condition for an increase of 7½ per cent in the base Commonwealth grant scheme grant this year. It was five per cent last year and 2½ per cent the year before. So there was not a separate provision for the workplace relations requirements. They were a requirement for a 7½ per cent increase in the base, together with the national governance protocols.

Mr Manns—Yes, and that equates to roughly \$240 million. That was conditional upon this compliance for 2007.

Senator CARR—So \$240 million is the figure?

Mr Manns—Roughly, yes.

Senator CARR—I take it that this funding is not part of the broader review into the relative funding model.

Mr Walters—No.

Senator CARR—It is not covered by that?

Mr Walters—Except in the sense that the \$240 million that Mr Manns has described is not paid separately. That is the 7½ per cent supplementation on each of the clusters.

Senator CARR—I understand. The funding is entirely discretionary, is it not?

Mr Walters—If you are talking about the 7½ per cent, this depends on the minister's determination that the universities have complied with the workplace relations requirements and the national governance protocols, and those in turn depend on submissions to that effect from the universities and that those submissions are accepted by the minister.

Senator CARR—Just so I get this clear in my mind, is the minister constrained by HESA in any way or by any other legislation?

Mr Walters—The minister must be satisfied that the universities have complied with those requirements, so it is a personal requirement placed on the minister.

Senator CARR—So it is entirely discretionary on the minister? She has to be satisfied?

Mr Walters—It is not discretionary. She is exercising a legal function.

Mr Manns—The legislation itself has a provision that says the universities need to comply with these two matters to be eligible for the increase, and the matters themselves are spelled out in detail in the Commonwealth Grant Scheme guidelines, which are made under the legislation.

Ms Paul—The assessment process undertaken was very comprehensive against those detailed guidelines and against the legislation.

Senator CARR—Let us just go through it. Is it the case that the formal status of these reform requirements have been enshrined in legislation?

Mr Walters—In the Higher Education Support Act. The workplace relations requirements and the governance protocols are not contained within the act. They are both matters that are determined by the minister in subordinate instruments.

Mr Manns—In guidelines made under the act.

Senator CARR—So I can find the specifics in some ministerial guidelines, can I?

Mr Manns—In the Commonwealth Grant Scheme guidelines. They are disallowable instruments, so they have been tabled in parliament and they are published on our website.

Senator CARR—On what basis does a minister determine that a university is compliant with these reform requirements?

Mr Walters—First of all, the department can collect declarations by the universities to the effect that they have complied, together with such evidence as is required in each case. The department looks through those and provides its advice to the minister, but then the minister has to make her own personal decision on whether she considers that the evidence supports the fact that they have complied. As we mentioned before, in every case this time the minister has determined that the university has complied.

Senator CARR—I have a copy of one of these letters that the minister has sent out. I just want to go through it with you, because I gather they are in a pro forma style. It says: 'I am satisfied that, as at 31 August, X university was compliant with the workplace relations reform proposals and the national governance protocol.' Is that a standard clause?

Mr Walters—It would be, yes.

Senator CARR—The minister then goes on to ask the department to pay the 7.5 per cent. Is that a standard clause?

Mr Walters—Yes.

Senator CARR—She goes on to say the university is compliant but then, in this particular case, she goes on to draw attention to a clause of the university workplace agreement that she indicates is not compliant, a clause about which she says ‘and I might in practice operate to restrict the ability of universities to offer employment on an AWA only basis, thereby impinging on the workplace flexibility requirement of the higher education workplace relations reform 3’. So here the minister has decreed that the university is compliant and simultaneously decreed that the university is not compliant.

Mr Walters—No. The determination is that the university is compliant, but the minister chose in a number of cases, having reviewed all the evidence, to draw the university’s attention to a number of issues which she felt should be drawn to its attention in those circumstances. But that does not affect the fact that the determination was that each of these universities was compliant.

Senator CARR—I have here copies of comments made by your officers—that is, the workplace productivity unit—with regard to—

Mr Walters—That is part of the higher education group.

Senator CARR—That is part of your group?

Mr Walters—Yes.

Senator CARR—They relate to a dozen universities and the comments are all dated in July 2006. The comments indicate to me that DEST regarded most of the universities, in the month before they were regarded as compliant, as far from compliant. Can you confirm for me that that was in fact the case?

Mr Walters—The department looked through all the evidence provided by the universities. In some cases this came down to many box loads of material. This was the job that the department had to do. The department discussed a number of issues in several cases with the universities. Indeed, throughout the last couple of years, the universities have constantly asked the department for views and advice. In each case, we have given those views and that advice but made the point that this could not prejudice the minister’s determination, because the minister has to make a personal determination in these matters. So, whatever you might find in the papers you have been given to the effect that comments were received from the department, they would have always been made in the context that they could not prejudice the minister’s own determination of the matter. They were intended to be helpful.

Senator CARR—They were just helpful suggestions, were they?

Ms Baly—That was also before the compliance date of 31 August. So there was opportunity for universities that had issues at that time to correct them before the compliance date of 31 August.

Senator CARR—Was it the case that all of these comments related to changes recommended in their draft workplace agreements?

Ms Baly—I do not know what you have in front of you. There would also have been comments made on policies and practices of the university, not just on draft agreements.

Ms Paul—It is a very comprehensive process over a long period of time. I think you are picking up there on a point in the process where we were making comments and suggestions before the final date and, as Mr Walters says, we would have always qualified our advice.

Senator CARR—If I take the University of Queensland as an example, dated 19 July, comments were made that clauses pertaining to a number of matters be removed from an agreement. Those matters include Indigenous employment, academic freedom, among other things. I wonder whether that, in fact, occurred.

Mr Walters—It is very hard for us to comment on documents you have and we do not have. All I can say in general terms is that we have been asked for advice by the universities over the last couple of years in this matter and we have provided it. We have also had the responsibility of looking at documentation that has been sent to us after the compliance date as evidence. If you had that document before the compliance date, it was almost certainly sent to us as something which the university was seeking our comments and advice on. We would have given advice, as I say, without prejudice to the fact that it is actually the minister's personal determination. And, of course, as Ms Baly rightly points out, that determination is in the light of the facts as they existed at 31 August.

Ms Paul—At that point it would not have had a particular status—which is part of the point Mr Walters is making—because we were still at the point of them asking for our advice and our giving some but with those qualifications.

Senator CARR—I see the point you make. It is DEWR that actually signs off on these workplace agreements, isn't it, not you?

Mr Walters—There is an advisory committee, which I chair, and DEWR are represented on. I sign off the advice of the committee to the minister and the minister then makes up her mind. It is her determination in the light of the advice she has from the committee, but it is very much her determination.

Senator CARR—Were these sections of the Queensland university's workplace agreement changed?

Ms Paul—I think that is impossible for us to say at this point without having it in front of us and without going back to the detail, because you are going back some time.

Senator CARR—Have you referred any of the universities to the Employment Advocate?

Ms Baly—Yes, a number of the universities did go to the Office of Employment Advocate to seek advice, particularly around issues of prohibited content.

Senator CARR—What was the outcome of those discussions?

Ms Baly—You would have to ask the individual universities. We were not privy to those negotiations.

Senator CARR—It is not quite clear to me what it is that you actually do in this process, apart from rubber stamp the agreements.

Ms Paul—Far from it.

Mr Walters—We receive the submissions that the universities have made and then look through the points in the higher education workplace relations requirements to ensure that they are compliant with those. In a number of instances, quite a lot of the documentation is identical to what we have seen before the compliance date and so that is a pretty straightforward matter because we have already had a look at it. As I say, on the advisory committee we also have the workplace relations department and independent advice, when needed, from Clayton Utz.

Ms Paul—It was a comprehensive exercise over quite a long period, which involved these different stages of quite a bit of communication back and forth and then our formal assessment point. So probably ‘a rubber stamp’ are the last words I would use. It was a full-on comprehensive exercise.

Senator CARR—Absolutely, and the changes have not been made; is that the case?

Ms Paul—I do not know what changes you are referring to.

Senator CARR—There is a whole lot of them here; it would be a lot to have changed.

Ms Paul—I could not possibly answer that without seeing the documentation.

Mr Walters—I can say for certain that a very substantial number of changes were made to a large number of agreements and policy documents and so on during the process, not just last year but the year before. In particular instances, sometimes we might have been asked for advice and the university chose to take a different view and obtained legal advice. Sometimes there was no cut and dried answer. We were dealing with 38 universities and a very large number of documents, so there is no single answer.

Senator CARR—Sure. No university has been refused funding?

Mr Walters—In this year’s round, every university was considered by the minister to be compliant with both the workplace relations requirements and the governance protocols, and they have all been agreed with respect to the 7½ per cent funding.

Senator CARR—How many staff are there in the higher education workplace productivity unit?

Ms Baly—About four.

Senator CARR—What levels are they appointed at?

Ms Baly—There is an EL2, two EL1s and an ASO4.

Senator CARR—What does it cost to run the unit?

Ms Baly—I will have to work that out.

Ms Paul—We will have to take that on notice.

Senator CARR—Is it a permanent part of the structure of the higher education group?

Mr Walters—Insofar as anything is permanent in government departments. That remains to be seen, I suppose.

Ms Paul—It has been a particular activity of the group over quite a long period. It goes back a couple of years.

Senator CARR—Could you provide me with the breakdown of the costs associated with the unit, not just salaries and oncosts but travel, administration and other costs?

Ms Baly—Yes, I can do that.

Senator CARR—For 2006. That will give us a bit of a base for it.

Ms Baly—I should also point out that that unit does more than look after the workplace relations requirements. They also look after the workplace productivity program.

Mr Walters—But we will allow for that pro rata.

Ms Paul—We will make an estimate of the cost.

Mr Walters—It is an estimate; we can give you that.

Senator CARR—It might be a suitable area. I am sure that the government are looking at it for savings, aren't they, given that it has been so successful. It is now unnecessary, surely.

Mr Walters—I had not heard that.

Senator CARR—In the budget process it would have been identified for savings, wouldn't it?

Senator Brandis—You know that you cannot ask the officer that, Senator Carr.

Senator CARR—It is a waste of time, isn't it?

Senator Brandis—No, it is a waste of time your asking questions that you know perfectly well cannot properly be answered.

Senator CARR—With respect to the capacity to manage index, the Institute of Public Affairs established a think tank. Are you aware of that particular institute's index?

Mr Walters—We are all looking blank, I am afraid.

Senator CARR—You do not have any idea of what I am talking about, do you? I want to ask you about the minister's media release, dated 19 December. What is anticipated here? She indicated in that release the funding in 2005 through to 2006. What is happening in the out years? Are you able to tell me whether that program will continue into 2008?

Ms Paul—Which program are you referring to?

Senator CARR—This is the workplace relations reform program.

Mr Walters—It was agreed there should be conditional increases in funding of 2½ per cent in 2005, five per cent in 2006 and 7½ per cent in 2007, conditional upon meeting the requirements which we have already discussed quite extensively. There are no further increases in the forward years, in the forward estimates, but continued compliance will continue to depend on universities complying with the workplace relations requirements and the national governance protocols. If they continue to do that then they will continue to get the 7½ per cent, which they received this year. That is in the forward estimates.

Senator CARR—I understand that with respect to the department offering genuine choice and flexibility in agreement making—which, of course, is one of the protocols, No. 1, I think; what used to be known as offering an AWA to all new employees—there has now been a change in wording. In the documentation, for instance, for the University of Queensland, it refers to ‘to offer genuine choice and flexibility in agreement making, to offer only an AWA’. Has there been a change in the position?

Ms Baly—No, there has been no change.

Mr Walters—I do not think there has been a change, no.

Senator CARR—You may want to look at the correspondence then. Whoever signed that off may well have acted inconsistently with protocol 1.

Mr Walters—I do not think we would have done that but, if you wish to refer the correspondence to us, we will gladly look at it.

Ms Paul—We would need to look at the correspondence to which you refer.

Senator CARR—How many institutions removed clauses or similar clauses from their agreements?

Mr Walters—Similar to what?

Senator CARR—With regard to offering AWAs.

Mr Walters—I think we would have to take that on notice.

Senator CARR—Can you confirm that Edith Cowan University in July of last year said that they had explicitly excluded all union-provided training from their agreement?

Mr Walters—I do not think we can answer that. We would have to take that on notice.

Senator CARR—Would you take that on notice?

Mr Walters—Yes.

Senator CARR—I wonder whether you could advise me as to whether the university, following the advice from your department, agreed to exclude union-provided training?

Mr Walters—Again, we will have to take that on notice.

Senator CARR—I wonder under what clause of the reform protocols such an instruction would apply?

Mr Walters—I think that is rather hypothetical, because we need to investigate the initial comment.

Ms Paul—We do not know whether such an instruction was made, so we need to take it on notice.

Senator CARR—That is July of last year.

Mr Walters—Can I make just one procedural point. We did not issue instructions. We were asked for advice on certain points—

Senator CARR—That is quite clear; that is absolutely clear.

Mr Walters—then we received the submissions from the universities and the minister made her determination. But we did not issue instructions, and we do not have any power under the legislation to issue instructions.

Senator CARR—Could you check your correspondence and can you confirm that the following matters: Indigenous employment, intellectual freedom and workplace bullying were regarded as prohibited content—this is in correspondence to Edith Cowan University—on the basis that they did not pertain to the employment relationship.

Ms Paul—We will take that on notice.

Ms Baly—We will take that on notice.

Senator CARR—Can you explain to me, after you have looked at that correspondence, how it is that those matters do not relate to the employment relationship?

Mr Walters—Can I take it that you are going to provide us with the correspondence so we are quite clear that we are answering—

Senator CARR—You do not have your own files?

Mr Walters—We do not know what you are looking at; that is all. We do have a lot of files on this.

Senator CARR—This is the correspondence to Edith Cowan University; I think it was 19 July last year—

Mr Walters—We will check all the correspondence with Edith Cowan for July last year and see whether we can find what—

Senator CARR—and see whether you can identify that matter.

Mr Walters—We will.

Ms Paul—Do you have a date there? You said the 19th.

Senator CARR—I thought it was 19 July. I have a whole lot of stuff here. I do not have that particular one in front of me. Sorry, it is dated 4 July. I have that in front of me.

Ms Paul—Thank you.

Mr Walters—Does it have a signature?

Senator CARR—No, not on this particular one. The note I have here does not have a signature on it. It is a series of claims, DEST requirements, regarding training clauses.

Ms Paul—So it is not actually a letter from us?

Senator CARR—It purports to be a report of discussions with your staff, as I look at it.

Mr Walters—Discussions or correspondence, just so we know what we are looking for?

Senator CARR—Yes, that is a fair question. It would appear to be a report of discussions.

Mr Walters—So it might not be correspondence; it might be a perception?

Senator CARR—You had meetings with them on 4 July. You can establish whether or not that is the case—

Mr Walters—We might have had a phone conversation or something like that. We will see if we have—

Senator CARR—and what particular points you made to Edith Cowan with regard to their draft agreement. The report I have here purports to claim on your behalf the objections—

Mr Walters—We will check for any correspondence or any record of an oral discussion.

Senator CARR—Thank you. With regard to the University of Technology, Sydney, there are some concerns raised regarding agreements on salary levels, salary packaging and salary clauses. Is it the case that you told UTS to remove clauses on salary packaging from their agreement?

Mr Walters—Just to help us find it, is this, similarly, a report which might have been an oral discussion or correspondence and is it at about the same time?

Senator CARR—I have here a report from the University of Queensland, dated 19 July. It is not signed, but it says ‘Workplace Productivity Unit.’ It appears to be a report of discussions with your officers. I have another one here in a similar format, dated 7 July, from the University of Technology, Sydney, which is what I was just referring to.

Ms Paul—Is that another report of a conversation or a letter?

Senator CARR—No. It says ‘Department of Education, Science and Training, DEST, comments on draft workplace agreements,’ and what purports to be ‘Workplace Productivity Unit, DEST Higher Education Group,’ dated 7 July 2006. It goes through clause by clause suggestions—I do not know how you are describing them—or comments.

Ms Paul—Your question is: did we make those comments?

Senator CARR—Did you make comments with regard to salary packaging, for instance—let us take something very specific—and why did you do so? Your suggestions are quite prescriptive.

Mr Walters—But, in general terms, our comments would have been directed to giving advice on the compliance of agreements or policy documents with the workplace relations requirements. We can find the correspondence, confirm that it was from us and confirm which of the workplace relations requirements we were relating those comments to.

Ms Paul—Yes, that is probably the best course.

Senator CARR—And were changes subsequently made—

Mr Walters—We can find that out too, I think.

Senator CARR—obviously prior to the minister signing them off as compliant?

Ms Paul—Yes.

Senator CARR—Can I turn to the workplace productivity program. Funding of \$83 million, over three years, was announced in 2006. Is that right?

Ms Baly—That is correct.

Senator CARR—That is round 1. When will rounds 2 and 3 will be available?

Ms Baly—I cannot comment on round 3, but we are expecting that round 2 will be during the first half of this year.

Senator CARR—Are you able to tell me what the allocation will be?

Ms Baly—About \$60 million has been allocated so far from round 1, so the balance of that will be available.

Senator CARR—When is round 3 due?

Ms Baly—It will depend on the outcome of round 2 and how much money is allocated on the basis of that.

Mr Walters—The minister might decide not to have a round 3 but to allocate all the funding in round 2, the reason being some people put in bids which obviously stretch over more than one year because they are longer projects.

Senator CARR—Would you describe the guidelines for this program as extensive?

Mr Walters—We try to make all our guidelines extensive because it cuts down the amount of queries we have to answer afterwards. Quite a lot of the guidelines also contain common material about the awarding of grants by the department. So the universities are actually quite familiar with them because their background stuff all looks fairly similar.

Senator CARR—How many pages do they go to?

Ms Baly—One.

Senator CARR—This is the extensive guidelines; one page. Is that right? Just one A4 sheet?

Ms Baly—The guidelines themselves are one page. There is additional supporting information in an administrative document.

Senator CARR—I have here a copy of the guidelines, and I would not call them extensive.

Ms Baly—No. The more detailed program information is included in the administrative information for providers.

Senator CARR—If we compare the expenditure of \$90 million, or did you say \$83 million?

Ms Baly—I said \$83 million.

Senator CARR—Over three years. Take, for instance, a similar amount, the school chaplaincy program, it is about \$90 million; they have 30 pages.

Ms Paul—As we said, there is more than the one page. At any rate, in the higher education sector we tend to consult the sector when we are developing guidelines. So the sector, as Mr Walters said, is usually familiar with the form.

Senator CARR—So how do we reconcile the allocation of that amount of money with any criteria? It is one page, which effectively says the allocation of funding will be \$27 million for 2006, \$27 million for 2007, \$28 million for 2008. That is what it says. 'The allocation of the grants will be available to meet existing workplace productivity funding commitments. Grants

in response to submissions; grants in response to proposals; grants to be made in response to proposals are consistent with the objects of the program.' That is what I would call scanty.

Ms Baly—I do not think you can take this alone, though, without the administrative information, which is also provided. I cannot comment specifically on the program that you have mentioned, but presumably it is one self-contained document.

Ms Paul—That is right, and every program is different of course.

Senator CARR—Very different.

Ms Paul—It really depends on the nature of the program, the intention, what is required and the scope of the requirement. But, as Ms Baly said, this page cannot be taken alone.

Senator CARR—So how does the minister or the department report against the selection criteria?

Ms Baly—The selection criteria are contained in the administrative information.

Senator CARR—Where do I find that?

Ms Baly—That is available on the web. It is all public information.

Senator CARR—So you will be able to tell me why it is that the Charles Darwin University, which is a relatively small institution, received \$1 million while Murdoch University, which is a relatively large institution, received only \$300,000, and the University of Western Australia received \$212,000.

Ms Paul—This is a program, the assessment for which is not based on a pro rata allocation but on a submission based approach, which I am sure my colleagues can describe.

Mr Walters—Some of the projects straddle more than one university. For example, there was, I think, \$6.1 million for a national review of the purchasing practices of 29 universities. There was a consortium there. So it is really comparing apples and oranges. It was on the merits of the projects rather than on the size of the universities.

Senator CARR—Explain to me what the merits were. I have given you some of the figures: Charles Darwin University, \$1 million; Murdoch University, \$300,000; and, the University of Western Australia, \$212,000. Yet the University of Ballarat, which is a tiny institution, if I recall rightly, received \$3 million. Ballarat university received more money than Monash University or the University of Sydney.

Ms Paul—As I said, it is not based on the size of the institution.

Senator CARR—It is also the case that Ballarat university was the subject of considerable industrial unrest, strikes and a number of other matters. Why was it necessary to throw \$3 million at Ballarat university?

Ms Paul—That would have been the result of the assessment process against the criteria in that program, which, as Ms Baly said, were in the administrative background material.

Senator CARR—What was the criteria that Ballarat university met to receive \$3 million more than Monash University, the University of Sydney, Murdoch University or the UWA?

Ms Baly—All of the applications were assessed against all of the criteria and given a rating. I do not have the individual applications here and so I cannot comment specifically on

that other than to say that the application that was put in by Ballarat university was competitive with the other applications that were submitted in that round.

Senator CARR—Would you be able to provide me with a detailed description including the cost breakdowns for the successful applicants under this program?

Ms Baly—I may be able to do that. I am not quite sure of the extent of the breakdown.

Senator CARR—Could you take that on notice for me. That would be very helpful.

Ms Baly—I will see what I can do.

Senator CARR—The minister has made much of the productivity gains. I just wonder how they were measured.

Ms Baly—I will take that one on notice.

Senator CARR—The old HEFA required the minister to table a report annually with a set of determinations on the amounts of operating and other grants to universities. As I understand it, there were no reports tabled after 1998. That is right, isn't it? Are you aware of that?

Mr Walters—I think it is before our time.

Ms Paul—I do not know that we know the answer.

Mr Walters—I think we would have to take that on notice. It is too long ago for anyone here along the table to know.

Senator CARR—The HESA reporting regime has become less transparent even than that. There is no requirement for the minister to table a report on the grants allocation and no provision for parliament to approve the allocation. That is right, isn't it?

Mr Manns—There is certainly no requirement for parliament to approve specific allocations beyond the level of detail that is in the legislation itself. As I mentioned in response to an earlier question, the funding agreements for each university are tabled in parliament. That gives the parliament knowledge of the size of the grant to each under the Commonwealth Grants Scheme. There is a requirement for the minister to table a list of maximum grant amounts for each of the heads under the other grants provisions of HESA—that is, how much of that total appropriation for other grants will be allocated to each of the heads of grants in HESA—but there is no requirement to table details of the individual funding amounts provided to universities under those programs.

Senator CARR—There is no requirement for specific reporting with regard to the workplace relations matters, national governance protocols, productivity, programs, collaboration and structural reform. That is right, is it?

Mr Manns—In relation to the workplace relations requirements and the national governance protocols, the amount of money which is conditional upon compliance with those is separately specified in each university's funding agreement, and that is tabled in parliament. Beyond the level of detail I mentioned in terms of the list of maximum grant amounts for other grants, which includes effectively everything other than the Commonwealth Grants Scheme, there is no provision to go beyond that.

Senator CARR—A review of university reforms was announced in a ministerial press release on 19 December. This is a review of the Backing Australia's Future reform package.

Mr Walters—This is the one we were talking about earlier.

Senator CARR—That is the clusters—the relative funding model. They are not separate reviews.

Mr Walters—No. That is the first phase of the review. The legislation—the Higher Education Support Act—required a review to be commenced by the end of last year, and that announcement concerned the commencement of that review and confirmed that the first part of it would be a review of the current discipline groupings and relativities within the cluster funding mechanism and the pipeline arrangements for the funding of new Commonwealth supported places.

Senator CARR—Are the strategic analysis and evaluation group and the income support and student branch here?

Mr Walters—They will be appearing later on.

Ms Paul—I think they come before international.

Senator CARR—And they will do youth allowance?

Ms Paul—Yes, they will.

Senator CARR—And rent assistance?

Ms Paul—Yes.

Senator CARR—Scholarships?

Mr Walters—If you are talking about Commonwealth learning scholarships, that is dealt with by the higher education group. We can deal with it now.

Senator CARR—Do you deal with assessable income for scholarships?

Ms Paul—That is probably income support.

Senator CARR—Do you deal with VSU transitional funding—2.4?

Mr Walters—Yes.

Senator CARR—Has the funding for transitional allocations to universities—the VSU—been released yet?

Mr Walters—No. The recommendations are with the minister, and we anticipate an announcement fairly soon.

Senator CARR—Are you anticipating that universities receive a lump sum, or will the funding be provided along with operating grant payments on a fortnightly or monthly basis?

Mr Walters—This is a grant payment. I am not quite sure how we pay that; I think we pay it in a single sum.

Ms Baly—They will be paid in a single lump sum or several lump sums.

Senator CARR—Why is there a delay?

Mr Walters—There is no particular delay. I have forgotten when the guidelines were released, but they were towards the end of last year. Obviously, we got a lot of applications in. They had to be assessed and then looked at by the minister's office. They have been part of the normal workload, and the announcement should be soon.

Ms Baly—I think we have said all along that it would take two months to do the assessment of those applications. They closed in November, so there has not been a significant delay.

Senator CARR—Do the universities have any understanding of how much money they are likely to receive?

Ms Baly—They know what is available in the total program, but not individually. They would have no idea.

Senator CARR—Do you deal with FEE-HELP here?

Mr Walters—Yes.

Senator CARR—How many private providers now have access to the FEE-HELP program?

Ms Sparkes—I am just checking my figures, but I think at the moment we have approved 57 private providers.

Senator CARR—Can you provide me with a list of courses and the private institutions that have accessed FEE-HELP?

Ms Sparkes—The list of institutions that we have approved is on our website. I can provide you with the information on courses separately. I will take that on notice.

Senator CARR—Since 2005, year by year, how many students have availed themselves of FEE-HELP?

Ms Sparkes—I would have to take that on notice.

Mr Manns—2005 is the first year.

Senator CARR—So it is just last year.

Ms Sparkes—Yes, it is just last year.

Senator CARR—Are you able to provide a table of both public and private providers and the number of students?

Mr Manns—Yes, we can do that for 2005.

Senator CARR—How many students in full fee undergraduate places in publicly funded universities have so far availed themselves of FEE-HELP?

Mr Manns—In 2005, in what we call table A providers, there were 3,476 students or 2,302 EFTSL—that is, equivalent full-time student load—who took out FEE-HELP for an undergraduate award course.

Senator CARR—Are you able to give me a breakdown on that for each of the institutions?

Mr Manns—Yes, we can do that on notice.

Senator CARR—There is \$46 million for the Collaboration and Structural Reform Fund. That is right, isn't it?

Ms Baly—It is a little more than that—\$51 million.

Senator CARR—How are these funds allocated? Is it submissions based?

Ms Baly—It is a submission based program, yes.

Senator CARR—Where do I find the guidelines for the program?

Ms Baly—The guidelines are part of the Other Grants Guidelines, and they are available on the website.

Senator CARR—Who is eligible to apply?

Ms Baly—All table A providers are eligible to apply, as well as a range of other organisations. The program is about collaboration, so most of the lead agencies that have applied have been universities, but not all.

Senator CARR—How do I establish what the criteria are for assessing applications under this program?

Ms Baly—Those assessment criteria are included in the administrative information for providers—the same guideline structure as the workplace productivity program.

Senator CARR—Have you worked out the details of the process to be used in the allocation of the additional engineering places?

Mr Manns—Broadly, yes, we have. We have only just put it to the minister to agree so the decision will be hers. As was announced at the time by the Prime Minister, we will effectively seek applications from universities for the new places. We are proposing to do that as part of the round of new places that we would be allocating for 2008 in any case—the growth places funded under Backing Australia's Future—so we will do it in conjunction with that. We are also proposing to seek, from engineering peak employer bodies, any views they may have on relative priorities within individual engineering disciplines and we will convey that information back out to the universities so they will be aware of what industry is telling us they need. We would expect to finalise the process by about midyear—probably about July—so that universities will know what additional places they have well before the commencement of next year so they can gear up for those.

Senator CARR—Is it your intention to instruct the universities not to lower entry scores to access this program?

Mr Walters—We do not provide any instructions to universities about admission procedures or entry scores.

CHAIR—Is it also up to universities to decide how many fee-paying places they will provide and how many Commonwealth HECS-paying places they will provide?

Mr Walters—There is a restriction on the proportion of fee-paying places that can be provided in courses where there are Commonwealth places, which Mr Manns can explain.

Mr Manns—We allocate to each university a given number of Commonwealth Grant Scheme places—Commonwealth supported places—through the university's funding

agreement. So that effectively sets the number of what people still call 'HECS places' that universities can offer. Within any given course the university must have at least 65 per cent of its places filled by Commonwealth-supported students. In other words, they can have a maximum of 35 per cent in any course. I am talking only about undergraduate courses here.

Senator BARNETT—Is that in every university?

Mr Manns—It is a legislative provision that applies across the board to all table A providers. The only exception to that rule is medicine, where the limit is 25 per cent of fee payers.

CHAIR—With those fee-paying places, is there any lower restriction on the marks or the score that they need to have to get into that course?

Mr Manns—No, we do not set anything like that.

CHAIR—No, I did not mean that you did, but that the university does.

Mr Manns—There is another rule in the legislation which says that, apart from that limitation on the mix in any given course, a university has to fill all of its Commonwealth-supported places before it offers fee-paying places. There is another provision in HESA which says that the university must select its students on the basis of a fair and open, transparent process based on merit. That is a very long way of saying that the Commonwealth-supported places have to be awarded to students first. So clearly the most meritorious students will be offered those places. Beyond that, the university can offer fee-paying places, so it is entirely possible that the students who are offered the fee-paying places had a lower level of TER than those that were first in, if you like, for the Commonwealth supported places. But we do not set any rule about that. The university has to select all of its students, whether they be fee-paying or Commonwealth-supported, on the basis of merit and on open and transparent processes. That is an overarching requirement of the legislation.

CHAIR—So the score needed would go down as far as necessary to fill their number of fee-paying places?

Mr Manns—The universities will typically set a level below which a student would probably not succeed if they went into that course.

CHAIR—So that is a floor.

Mr Manns—A floor, if you like. We require the universities to publish that eligibility—

Ms Sparkes—We require universities to set an eligibility score, which is different to the cut-off score, which actually indicates the number of students that are able to fill places based on demand.

Mr Manns—The cut-off score can be the interplay of supply and demand rather than the minimum a student needs to actually succeed.

Mr Walters—It is worth bearing in mind that quite a number of students are not admitted on the basis of TER scores. That is really a system for admitting school leavers, but since we have got something like a third or more of all the students who are not school leavers, they tend not to be admitted on the basis of TER scores. That is worth bearing in mind when you are trying to wrestle with this.

Mr Manns—The process still has to be on merit, and be open and transparent.

CHAIR—Thank you for that.

Senator CARR—I will put the rest of my questions on notice in regard to that division. We are running out of time. Could I ask if the VET officers are here?

CHAIR—Just before we leave higher education, Senator Barnett has some questions in outcome 2.

Senator BARNETT—Just in outcome 2, I am interested to ask a few questions firstly about the Larry Knight Scholarship, which is the University of Tasmania scholarship following the Beaconsfield mine tragedy. Can you just outline the progress of the proposal and its status?

Ms Baly—The proposal was to provide \$1 million to the University of Tasmania for them to generate some income from that to provide a scholarship each year in memory of Larry Knight. That was announced by the Prime Minister in May this year.

Senator BARNETT—Last year.

Ms Baly—May of last year, yes. The scholarship will commence this year. I understand that the University of Tasmania has already gone through a selection process for that and has selected Mr Michael Nielsen, who will be studying a Bachelor of Engineering in civil mining, as the recipient for this year. He will receive \$13,000 to assist with the cost of education and accommodation.

Senator BARNETT—Is that \$13,000 for this year likely to go up and down depending on the interest on the \$1 million, or is it about \$13,000 every year? Have they decided the funding appropriate to each scholarship each year?

Ms Baly—The amount of money that the university generates will go up from year to year. The requirement on them is to provide a scholarship of about that order. They have some flexibility in how they choose to do that.

Senator BARNETT—In terms of the contribution of the University of Tasmania budget to the Tasmanian economy, do you have any details or figures on that? I have been advised that some \$250 million last year was their budget and their contribution to the economy.

Mr Walters—It is not something we collect but I am sure they are making an extremely valuable contribution to the Tasmanian economy, and the vice-chancellor never ceases to tell me that.

Senator BARNETT—Yes, he is a very outgoing vice-chancellor and does an excellent job for the University of Tasmania. Chair, I have a document: University of Tasmania contribution to the Tasmanian economy. I would like to table that document for the purposes of outlining the answer to that question.

CHAIR—Thank you. We will move on to vocational training and education groups.

Senator CARR—Mr Davidson, last estimates round I asked some questions in regard to Industry Skills Council and you took some matters on notice. The answer to that question was delivered to me today at 10 am. Are you able to explain to me why it was so late?

Ms Paul—Mr Davidson may be able to add more detail but, as I said before, we were a bit caught by the Christmas period and so on. A few did come in very late and I apologise for that.

Senator CARR—That does not help explain to me why this particular question was so late.

Ms Paul—I suspect that that is probably the explanation: that it was caught up in our own Christmas period and so on, and it just was not able to be got here earlier than that.

Senator CARR—Let us have a look at the answer. The answer says that the Industry Skills Council's contracts were extended for six months until 31 December 2006. In fact I think they were extended a bit further than that. What is the date at which the contracts have been extended, Mr Davidson?

Ms Cross—The answer is referring to the initial extension of ISC contracts to the end of December 2006. Since that time they have been extended for 15 months, which takes them through to the end of March 2008.

Senator CARR—What contracts are the ISCs operating on at the moment?

Ms Cross—They are operating under the 15-month contract extension.

Senator CARR—What is the value of the new contract?

Ms Cross—I do not have the total value in front of me, but I have the value of the individual ISC contracts.

Senator CARR—Could you give me that, please?

Ms Cross—Do you want me to read through them?

Senator CARR—Yes, please. If you have got them in a table form I will take them in a table form.

Ms Cross—I have not got anything I can table here but I can read them to you.

Senator CARR—Whatever is easiest; I am just looking at trying to expedite the answer.

Ms Cross—I think I will have to read through them for you. I do not have them in a form that can be tabled.

Senator CARR—I have a list here of the value of the contracts that is associated with the table. Is that the same list?

Ms Cross—The value of the new contracts would be different to the ones in the table provided to you because they cover a different period of time.

Senator CARR—Okay. What are they?

Ms Cross—Agrifood, \$2,186,444.25; community services and health, \$1,545,333.47; construction and property services, \$1,726,820.03; electro-communications and energy, \$1,471,746.16; government and community safety, \$2,442,712.80.

Senator CARR—They got more! Innovation?

Ms Cross—\$3,132,745.23; manufacturing, \$2,574,868.30; resources and infrastructure, \$2,255,094.78; service industries, \$2,966,592.36; transport and logistics, \$1,187,205.86.

Senator CARR—Why has the government and community safety program increased when all the others have decreased?

Ms Cross—It depends on what was in individual contract periods. In some periods on their business plan they will request funding for projects of different values, so I would assume that the value of the projects that they are being funded in this 15-month period is considerably greater, and I suspect it relates to the fact that they were one of the later ISCs to be established, so they have probably been slowly building up to the total sphere of activity.

Senator CARR—They have got a table here. I might ask you about the boards. The new contracts require changes to the boards of councils. Can you provide me with a copy of the letter that the minister sent to the ISCs on 22 December?

Mr Davidson—I think we are able to provide a copy.

Senator CARR—The ISCs are supposed to reduce the size of their boards from 12 or 14 to six or eight. Is it a requirement that all members of the board must be acceptable to employer associations?

Ms Cross—I believe that was the wording of the letter from the minister.

Senator CARR—Employer associations?

Ms Cross—Yes, it says ‘employer representatives being acceptable to the relevant employer association,’ so that means employer representatives rather than all board members.

Senator CARR—I see. There is a requirement that all the boards have a majority of employer representation.

Ms Cross—A simple majority of employers, yes.

Senator CARR—Why is that?

Senator CROSSIN—The Industry Skills Councils are required to represent the views of industry and, as is the case in most of the industry bodies in the national training system, that involves a mix of employers and union representatives and, in all instances that I am aware of in the national system, it is a majority of employers. It makes it consistent with the make-up of the previous ANTA board, and the current National Industry Skills Committee.

Senator CARR—In clause (b) of the answer to E622, you say, ‘The evaluation report was provided to Minister Hardgrave in the second half of 2006.’ Can you be more specific; when?

Ms Cross—The date is 26 July and we provided that to you at the last Senate estimates hearing.

Senator CARR—Thank you. I would like to go to the recommendations. I have a copy of the report here. I am wondering if I could go to those. It will save a lot of trouble if you know I have actually got the report.

Mr Davidson—The report is widely disseminated.

Senator CARR—Yes, it is widely disseminated. However, it was not widely disseminated at the time we raised this matter at the last estimates, was it?

CHAIR—Senator Carr, we will now break for a 15-minute tea break.

Proceedings suspended from 8.59 pm to 9.17 pm

CHAIR—We have decided that in view of the time we will send Indigenous and Transitions Group home; we will not be dealing with them tonight. We still hope to deal with Schools Group, Strategic Analysis and Evaluation Group and International Education Group in the time available. Senator Carr.

Senator CARR—I will return to this report—and, thank you, I have the ministerial letter, which I understand has been tabled.

CHAIR—Yes, it has been tabled.

Senator CARR—Can I confirm that Mr Balzary was paid \$10,000 for his advice.

Mr Davidson—That is correct.

Senator CARR—And Mr Tom Barton was paid his \$10,000.

Mr Davidson—That is correct.

Senator CARR—Do we have copies of their reports?

Ms Cross—Yes, they are available on request. Would you like a copy?

Senator CARR—I am now requesting. Thank you very much. What were the start dates and the end dates of their contracts?

Ms Cross—The contract with Mr Balzary commenced on 21 September and finished on 30 September. The contract with Mr Barton commenced on 21 September and ended on 30 September.

Senator CARR—You mean to say they were paid \$10,000 for nine day's work.

Ms Cross—That was the period of the contract.

Senator CARR—\$10,000 for nine day's work. Is that the going rate these days?

Ms Paul—The going rate for a consultancy is well over \$1,000 per day, usually closer to \$2,000.

Senator CARR—I did not realise it was only nine day's work, though.

Ms Paul—Yes.

Senator CARR—Was Mr Balzary working for ACCI at the same time?

Ms Cross—No.

Senator CARR—This is after he got the boot from ACCI, wasn't it?

Mr Davidson—He was not working for ACCI at the time.

Senator CARR—How substantial is his report? Have you got a copy with you?

Ms Paul—We have got a copy coming to you.

Senator CARR—Could I have a look at it; is it possible to do that? I will come back to that. Mr Davidson, does the department stand by the position that was outlined in this draft report on page 3, that overall the ISCs have achieved considerable progress?

Mr Davidson—Yes.

Senator CARR—You stand by that?

Mr Davidson—Yes.

Senator CARR—The report identifies some impediments to their performance, including some issues with ISC boards. The key message from industry was to stop trying to change the system; let it run. Do you stand by that?

Mr Davidson—Yes.

Senator CARR—And: industry is getting sick of changes being made before the earlier changes have time to bite—it was set back 12 months by the last changes. Do you stand by that?

Mr Davidson—That was what the department was advised by the people we consulted.

Ms Paul—That was industry's advice to us. We are reporting on some views from some parts of industry.

Senator CARR—And: most of the government money seems to get spent on ever more changes, so we put much effort in and then the government goes and changes it. Is that the position?

Mr Davidson—Again, that is a view that was expressed to the department. It is not the department's view.

Ms Paul—It is not a universal view either. I think we discussed some of the different views last time we were here.

Senator CARR—And: the department calls on the minister to make the government's expectations from the ISCs much clearer. That is right, isn't it?

Mr Davidson—That is correct. That is the report.

Senator CARR—That is what the report says. Finally, you make some recommendations about the renewal of contracts for ISCs. You divide them into three groups. High-performing ISCs: you identify four of them who should get three-year contracts.

Mr Davidson—That was the recommendation in the report.

Senator CARR—Medium-performing ISCs: four should get another cycle at present. And the lower ISCs: just two should have their contracts renewed until 30 June. Which of these recommendations did the minister have a problem with?

Mr Davidson—You would have to ask the minister that.

Senator CARR—He is not there now so I can't, can I?

Ms Paul—The former minister. And of course, as we explained last time, our work here was just one input in the policy-advising process. There were other inputs, including the inputs from Tom Barton, the previous Queensland state minister, and Mr Balzary and, no doubt, the former minister's own consultations and so on.

Senator CARR—This is Mr Hardgrave's report. We do not have a copy of the other report yet. You say that the evaluation report was provided to ACCI in advance of everyone else in response to a request. Who made that request?

Mr Davidson—I think Rebecca and I attended a meeting of the Education and Training Committee at the Australian Chamber of Commerce and Industry. That request was made, it was relayed, and the decision was that the report could be made available.

Ms Paul—I think we went over this last time too, didn't we?

Senator CARR—You did. Was there any correspondence on this matter or was it all done verbally?

Ms Cross—I believe it was all done verbally.

Senator CARR—Who made the request that copies of the reports be made to Mr Barton and Mr Balzary?

Ms Cross—The minister requested that we commission independent perspectives and, as part of commissioning that, it was agreed that they should be given a copy of the department's report.

Senator CARR—Is the department funding Mr Balzary to brief Mr Patrick McKendry?

Ms Cross—No.

Senator CARR—Has that been confirmed that he is going to be the chair of the Quality Council?

Mr Davidson—Mr McKendry is the appointed Chair of the National Quality Council.

Senator CARR—This is dated 22 September. Mr Tom Barton was appointed on what day?

Ms Cross—The contract period for Mr Barton was 21 September to 30 September.

Senator CARR—Gee, he wrote that quickly, didn't he—if he is appointed on 21st and delivers the report on the 22nd? That's not bad, for \$10,000.

Ms Cross—It may relate to the date on which the contract was signed, not the date of initial discussions with Mr Barton.

Ms Paul—I do not think the contract period we are talking about necessarily reflects the amount of work precisely.

Senator CARR—Right. Mr Balzary's report is 25 September, so he obviously worked very quickly as well.

Ms Cross—Again, I think the dates of the contract relate to the date on which it was signed?

Senator CARR—I suppose the report does not reflect the amount of work put in as well, does it? It is a pretty thin report for \$10,000.

Ms Paul—It doesn't have to be judged by length, presumably.

Senator CARR—How else would I judge it?

Ms Paul—Presumably the former minister judged it on the basis of the quality advice as he saw it. It was an input to policy consideration that he sought, as you know.

Senator CARR—Do you think the handling of this fiasco was the reason he lost the ministry?

Ms Paul—I cannot possibly comment on that, as you know.

Senator CARR—I will come back to those when I have had a chance to read them. On the Australian apprenticeships centre in Hobart facility that was closed, I am wondering if you could tell me how many apprentices operated through the centre.

Mr Johnson—One of the Australian apprenticeship centres under contract to the department in Tasmania had been in discussions with the department last year about rescinding their contract arrangements. We have been working with that organisation and the other Australian apprenticeship centres operating in Tasmania to support the transition of apprentices which they have supported to other employers and to other Australian apprenticeship centres.

Ms White—That Australian apprenticeship centre had 2,779 registrations that they were managing at the time of closure.

Senator CARR—Can you explain to me how it was that the department terminated the contract; why did you do that?

Ms White—The organisation approached us and wished us to terminate the contract. They asked to be withdrawn from the contract.

Senator CARR—What explanation do they give you to terminate the contract?

Ms White—I am not sure that they actually gave us an explanation. We had noticed for some time that they were losing staff and we understand there were some financial difficulties.

Senator CARR—Have there been any apprentices of the 2,000-odd that you mentioned who have not been placed with other providers?

Ms White—All the apprentices have been transferred to other Australian apprenticeship centres.

Senator CARR—I will turn to Skills for the Future or the work skills voucher. How much are the administered and departmental costs for this program? This is an \$837 million program, is it not?

Ms Paul—One component of the \$837 million package announced by the Prime Minister is the work skills vouchers. There are a number of components.

Mr Johnson—The two voucher components in terms of the work skills vouchers provide for \$407.6 million over five years and the business skills vouchers provide for \$12.3 million over the five years.

Senator CARR—What is the total administered and departmental cost?

Mr Johnson—I would have to take that on notice.

Senator CARR—That surprises me. I would have thought that would be something you would have.

Mr Johnson—In terms of the work skills voucher, the additional estimates provide for an indication of total departmental and administered costs of \$96,108,000 over the four years from 2006-07 to—

Senator CARR—What page is that on?

Mr Johnson—Page 14.

Senator CARR—And that gives the forward estimates, does it?

Mr Johnson—It does, and page 13 refers—

Senator CARR—Thank you very much. I guess it has only operated since—

Ms Cross—1 January.

Senator CARR—So how many vouchers have been issued?

Ms Cross—We have issued around 2,000 vouchers.

Senator CARR—And where have they been issued?

Ms Cross—Would you like a state breakdown?

Senator CARR—Yes.

Ms Cross—Five in the ACT, 619 in New South Wales, 69 in the Northern Territory, 474 in Queensland, 294 in South Australia, 35 in Tasmania, 450 in Victoria and 61 in Western Australia.

Senator CARR—Are there any guidelines in place to determine eligibility?

Ms Cross—There are; the guidelines are on the website.

Senator CARR—We have had a bit of trouble finding these guidelines on the website. Is there a section of the website where all these departmental—

Ms Cross—Yes; if you go into the DEST website, right on the front page there is an Australian skills vouchers program icon, and if you go into there all of the documentation for individuals or providers wishing to participate in the program is available in the one site.

Senator CARR—Are there any performance indicators used to measure the success of, to evaluate, the program? Have you got that far yet?

Ms Cross—Yes; I think they are included for the program. I would have to go and check, but we have got performance indicators.

Senator CARR—If you could check, please. You have told me the number of, I take it, students that have taken out the vouchers; how many businesses—

Ms Cross—There are 516 providers across Australia who have contracted with DEST to deliver the work skills voucher and business skills voucher programs.

Senator CARR—How do you approve those providers?

Ms Cross—Providers are required to complete an expression of interest process. If they are a registered training organisation or another organisation accredited by a state or territory, we

can approve them as an eligible provider. There is then a second process to approve the different courses that they would like to offer under the program.

Senator CARR—So there was obviously a tender process—was there?

Ms Cross—It was a request for proposals process. It was not a competitive process. Any registered training organisation could apply and as long as they were a registered training organisation they would be approved. There was then a question of separately approving the courses.

Senator CARR—Have there been any advertisements placed by the government on this program?

Ms Cross—There is a national marketing campaign for the Skills for the Future package, one of the advertisements of which does refer to the vouchers program.

Senator CARR—It is a TV campaign, is it?

Ms Cross—Yes, and there are—

Ms Paul—It is the one we have talked about before.

Ms Cross—radio and print.

Senator CARR—How much is involved with that?

Ms Paul—Funding?

Senator CARR—Yes.

Ms Paul—I think it is \$15 million; we discussed that last time, I think.

Senator CARR—And when will that run through till?

Ms Cross—There are three phases of advertising. The first phase was from October to January, the second phase is running from the end of January through to March and there will be a third phase in June.

Senator CARR—Have any price controls been put in place with the program?

Ms Cross—Yes. The value of the work skills voucher is \$3,000, and the department is approving courses up to around \$4,600. In that instance, if an individual chose that particular course they would make up the difference in the price.

Senator CARR—Who would—the provider?

Ms Cross—The individual.

Senator CARR—The individual?

Ms Cross—Yes.

Ms Paul—On that campaign question, I should say—which I think I have said before—that the work skills voucher is only one small part of that \$15 million campaign. There are three main parts: one is the whole package, of which this is just an element, and there are two other parts.

Senator CARR—The answer that I have here, E606, says that these vouchers won't be indexed; is there a reason for that?

Ms Cross—In terms of indexation, the providers were aware that, when they submitted their costs, the costs would apply over the three years of the program. The vouchers are valued at up to \$3,000 and, in actual fact, there is considerable variation in the costs which providers have submitted for similar courses. The courses vary according to their cost structures, what books and equipment they are including and administrative components.

Senator CARR—Mr Johnson, you said before that there is an allocation of \$96 million appropriated for administrative costs. The total program is \$408 million, so that seems to me to be an extraordinary amount of money for administration.

Ms Cross—That may include IT development costs for the online system associated with the vouchers and other elements of the program.

Ms Paul—The \$96 million includes the vouchers. It was not departmental only.

Mr Johnson—It is departmental and administered.

Ms Paul—It is the total that Mr Johnson was giving you before.

Senator CARR—What exactly is the parliament funding for that \$96 million?

Ms Paul—What component is departmental?

Senator CARR—Yes.

Ms Paul—We will have to add that up. We can do that now.

Senator CARR—You do not think that is an unusually high level of administrative costs?

Ms Paul—No, I am saying that is not administrative costs. The \$96 million is for the \$3,000 vouchers as well as the costs, the money to us to administer it, which of course is much, much less.

Senator CARR—Thank you. I turn to the Skilling Australia's Workforce Act apprenticeship incentives program. This is the old employer apprenticeship program, isn't it?

Ms Paul—Yes.

Senator CARR—What is the total amount appropriated for that now? How much is the Commonwealth spending on employer incentives?

Ms White—The employer incentives form part of a program called Support for Australian Apprenticeships. The current budget allocation for that program is around \$615 million.

Senator CARR—It has grown steadily over the years.

Ms White—That is correct.

Senator CARR—There are commencement payments of \$4,000 for the AQF3s and AQF4s?

Ms White—No, that is incorrect. The commencement payments for AQF3s and AQF4s is \$1,500. The total package is \$4,000. The completion incentive is \$2,500.

Senator CARR—What are the incentive payments for the higher technical skills in the diploma and advanced diploma qualifications?

Ms White—It is the same payment.

Senator CARR—\$4,000?

Ms White—Yes, in total.

Senator CARR—The innovation incentive provides an additional \$1,100 on top of the \$4,000.

Ms White—That is correct.

Senator CARR—That takes it to \$5,100. How much is the assistance for Australian apprentices with disabilities?

Ms White—Disabilities are assisted through a wage subsidy program. Employers are paid a subsidy of \$104.30 a week for the length of the Australian apprenticeship.

Senator CARR—What completion rates do you claim at the moment?

Ms White—The NCVER publishes completion rates. I believe it is around 60 per cent at the moment.

Senator CARR—I understand that the ANAO are conducting an audit of the program.

Ms White—That is correct.

Senator CARR—And that will go to the funding levels?

Ms White—The ANAO are auditing three separate elements. They are looking at the totality of Australian apprenticeships and how DEST reports outcomes and so on, they are looking at the department's administration of the Australian apprenticeship centres and they are looking at the Australian apprenticeships incentives program.

Senator CARR—Do you expect them to be able to report by May?

Ms White—I spoke to the ANAO earlier this week and they advised me that they are still on schedule to table the report around mid-May.

Senator CARR—The audit process that you have undertaken yourself is obviously different from the ANAO evaluation.

Ms White—That is correct.

Senator CARR—Have you found anything in your own audit that would make you want to change any of the program?

Ms White—We have different sorts of what could be called 'audits'. Our official audits are conducted by our Audit and Investigations Branch. As far as I know, they have done one audit of the new Australian apprenticeship centres and I am yet to be advised that they have found anything in that audit that I should be concerned about.

Senator CARR—In terms of incentive payments to employers, how many breaches of the guidelines by employers have you had in the last year?

Ms White—I do not know the answer to that question.

Senator CARR—Can you take it notice?

Ms White—I can take it on notice.

Senator CARR—Do you have a report on compliance?

Ms White—We do not have a compliance report on individual incentives. As I said, our audit branch audits Australian apprenticeship centres and, in so doing, they audit the files on the incentives paid to employers and Australian apprentices. As you know, we do take recovery action if we find that an incentive has been overpaid.

Senator CARR—Who does the audit of individual firms?

Mr Johnson—The department also undertakes, in addition to the auditing process that Ms White referred to, monitoring of individual Australian apprenticeship centres. That monitoring process looks at the individual records of sign-ups of individual Australian apprentices.

Senator CARR—Who does the audits for the meat industry?

Dr Bridge—My branch undertakes a program of internal audits on the Australian apprenticeship centres. For some time we have had a program of annual audits, usually four per year, which work around the Australian apprenticeship centres. They are done not on an industry basis but on a provider basis on each centre. We look at a number of ‘risk factors’—loosely termed—to determine which Australian apprenticeship centre we should visit each year and conduct an audit on. It is mostly around compliance with guidelines. We look at whether incentives are being paid correctly et cetera.

Senator CARR—Will the website give me a list of payments to date under this program?

Ms White—It is not on our website but we certainly report program expenditure in our annual report and also in the PBS.

Senator CARR—Are you able to provide me with a list of payments that have been made to date under this program?

Ms White—A list of employers who have been paid?

Senator CARR—Yes.

Ms White—That would be a very big report. We make around 1,500 to 1,800 payments a day.

Senator CARR—That is a bit difficult.

Mr Johnson—We have previously provided on notice detailed reports of payments of that nature.

Ms White—For instance, we have in the past provided details of perhaps the top 100 employers.

Senator CARR—The top 100 would be more than enough.

Ms White—I am happy to take that on notice.

Senator CARR—Do you have any recent assessments of compliance for those top 100?

Ms White—We do not audit individual employers per se. Certainly, state and territory governments audit employers to see if they are compliant with the various vocational education and training acts. Our state offices monitor the files in a similar way to what Dr Bridge was talking about. They go out and do random sampling of files. We would not have been out to audit incentives paid to a particular employer unless they were under investigation by the department.

Senator CARR—If an employer has a high churn rate, for instance, would that be picked up in these audits?

Ms White—Not in an incentive audit, but we do monitor those sorts of behaviours by employers, and certainly in our guidelines we have the right to withhold, withdraw or recover incentives from an employer who we believe may be entering into practices which look to us to be maximising incentives.

Senator CARR—I raised some questions some months ago about a meatworks at Warrnambool. Are you aware of that?

Ms White—I am aware of that.

Senator CARR—That is where an apprentice died after falling into a mincer.

Ms White—Yes, I am aware of that instance.

Senator CARR—It was put to me that the employer on this occasion claimed that because the person had epilepsy the company was therefore not responsible for the accident. Yet the employer had signed a form saying that there was no medical reason or otherwise for the apprentice not to be paid the money. It made no claim about prior condition prior to the accident. Did you pick that up in your investigation?

Ms White—Those sorts of investigations will be conducted by the Victorian state government in this instance.

Senator CARR—Have you asked them about their investigation into that particular site?

Ms White—We did speak to the Victorian state government when the matter was raised with us some time ago. I am not aware that they have finished their investigation into that case. I certainly have not heard anything recently.

Senator CARR—It was months ago.

Ms White—I have certainly heard nothing recently.

Senator CARR—It was also put to me that this particular employer had a very high churn rate. Are you aware of that claim?

Ms White—I am, and we have had a look at that employer in our system.

Senator CARR—What have you discovered?

Ms White—We have discovered that since 2001 the employer has taken on approximately 100 Australian apprentices per year, of which 92 per cent were at certificate II in meat processing, which is quite a low-level certificate. They have had 352 completions in the time period we had a look at, which is in line with the completion rate for other employers in the industry at that level of qualification.

Senator CARR—That was in 2001. When did you do the investigation?

Ms White—The Victorian government did the examination. I pulled these figures on 2 February this year.

Senator CARR—You probably anticipated I might ask that question.

Ms White—I did.

Senator CARR—That is very perceptive of you. It is 2007. So, what is it, 700 apprentices?

Ms White—I have records in front of me that show that organisation has had 878 commencements since 1998.

Senator CARR—How many completions out of the 878?

Ms White—They have had 352 completions.

Senator CARR—That is not exactly a startling 60 per cent completion rate, is it?

Ms White—I agree.

Senator CARR—I take it the reason you have looked at this is that I made some comments in the parliament?

Ms White—That is correct.

Senator CARR—Why did you not pick this up before then?

Mr Johnson—The department's monitoring of commencement activity for Australian apprenticeships is largely, as Ms White indicated previously, looking at growth in commencement numbers by employers. We focus very closely on patterns where there is substantial growth in commencement trends with individual employers, and work closely with the states to determine the evaluation and review processes of those individual sign-up activities to ensure that the training is appropriate.

Senator CARR—I appreciate the point you are making.

Ms Paul—I think Ms White was making the point that this was not so out of line that it necessarily would have shown up.

Senator CARR—It was not out of line! There are 352 out of 878! How much has been paid to this company in employer incentives in that time?

Ms White—As at 2 February this year that organisation has been paid \$926,341 since 1997-98.

Senator CARR—That is not much below \$1 million. It is the largest employer in the town of Warrnambool. They are training people at AQF2, which is advanced broom sweeping, isn't it? In the meat industry—ACF2?

Mr Davidson—No, Senator. It is an industry endorsed qualification that has been put to the industry skills—

Senator CARR—In the town of Warrnambool, where do 878 practices go?

Mr Davidson—I could not possibly answer that question off the top of my head.

Senator CARR—This is a wage subsidy program for that abattoir, isn't it?

Mr Johnson—No. The incentive provides encouragement to employers to open up training opportunities for apprentices and trainees and to support them in those structured training arrangements. It may well be the case that those individuals move on to other employment opportunities in the industry or in other regions.

Senator CARR—There is a skills shortage in the meat industry, isn't there?

Ms Paul—They may well be moving out into other areas. We cannot predict what is actually going on. That is speculation on both sides.

Senator CARR—What is not speculation is that this young boy died.

Mr Johnson—I will have to confirm the most recent information, but when we were investigating that case late last year I understood it was still the subject of a coronial investigation in Victoria so we could not really comment on it in any detail.

Senator CARR—No, you could not possibly comment. What I find remarkable is just how poor the supervision is of these programs.

Mr Davidson—That is not a fair comment; it does not—

Senator CARR—Mr Davidson, you are only too well aware of what happens in Victoria aren't you—particularly in the meat industry?

Mr Davidson—It is some time since I worked in Victoria. The comment you made is not sustainable. I do not think that you can say it has got to do with the supervision of the training program. What might be an industrial accident would be investigated by occupational health and safety authorities and, where necessary, appropriate court action taken. I think it is a long bow to draw.

Senator CARR—All right. I look forward to the report to see how well WorkCover dealt with the issue, how well your apprenticeship centre dealt with the issue and how well the supervision was of the Commonwealth program that funded nearly \$1 million of public money to 878 apprentices, which saw only 352 complete their training.

Ms Paul—The tragic matter that is before the coronial inquiry will not take us towards the actions of the apprenticeship centre, as you would be aware. It is clearly an oc health and safety matter.

Mr Johnson—The other important point to make in the context of those numbers is that a significant number of those Australian apprentices are still in the employment of Midfield Meats and they are continuing their qualifications. Whilst your figure refers to completions there are also a substantial number of apprentices still with that company.

Senator CARR—My recollection is that that company does not employ all that many more. This is a significant proportion of the workforce—100 every year. I think there are about 300 on at that site.

Ms Paul—Mr Johnson is saying that you would not expect all of those to have necessarily completed their training. There is a pipeline effect.

Mr Johnson—In a broader context, Senator, there are more than 400,000 apprentices in training. It is, as Mr Davidson referred to—

Senator CARR—I am concerned about the misuse of the program. I have been concerned about it for some years. I will continue to raise examples as they come to my attention. The ANAO audit program will not deal with any of these matters, will it?

Mr Davidson—No, because it is not a misuse of the program. Where a person is eligible for a subsidy and an employer incentive and it is ascertained that that eligibility has been established, then it is paid.

Senator CARR—The ANAO program will not deal with compliance questions, will it?

Ms White—Certainly, they would not be looking at individual employers.

Senator CARR—How much is the total administrative departmental cost for Skills for the Future and incentives for higher technical skills?

Mr Davidson—Page 11 of the appropriations for additional estimates will give you the departmental appropriations for the current year.

Senator CARR—Thank you. Where do I find the guidelines to determine employer eligibility for this particular program?

Mr Johnson—The guidelines relate to the same guidelines for employer eligibility for the broader Australian Apprenticeships Incentives Program. As Ms White indicated before, the initiative provides employers with a \$1,500 commencement and \$2,500 completion incentive for high-level qualifications under those same guidelines.

Senator CARR—Have Midfield Meats got any money out of this program?

Mr Johnson—The incentives for higher technical skills relate to a range of certificate 5 and 6 level qualifications, so I would not imagine—

Senator CARR—How many do Midfield employ at certificate V and VI level?

Mr Johnson—I will have to take that on notice.

Senator CARR—How many AQF fives and sixes has Midfield taken on since 1997?

Ms White—Nil, according to our records.

Senator CARR—Your records would be accurate—they fit with what I have been told.

Ms White—I would not have expected that they would in this industry, would you? A normal meat industry apprenticeship would be—

Senator CARR—In this industry?

Ms White—between a cert II and a cert IV, I should imagine.

Senator CARR—It is top of the skills shortage list for the use of 457 visas.

Ms Paul—But that is irrelevant to the level of the qualification.

Senator CARR—But it has highly skilled people in it. Why is it that this abattoir is not training them? It is only training them at the base level of AQF2.

Mr Davidson—I am sure they make assessment of their requirements in that workplace.

Senator CARR—Yes, they certainly do, and that is why I thought it would have come up in your audits. Why is there such a narrow focus of training at the most basic levels?

Ms Paul—There is not, unless I am misunderstanding you. Are you asking why there is such a focus by Midfield Meats?

Senator CARR—Yes.

Ms Paul—I cannot answer that except to say that those would be the qualifications required by that industry.

Senator CARR—That is not the case, I might say, Ms Paul.

Ms Paul—Okay.

Senator CARR—The industry does employ people at a much higher skill level, and they would not get on the 457 skills shortage list at that level.

Mr Davidson—What the government has done is extended the incentives for higher level qualifications and, in the circumstance where an industry sees that is appropriate and that we can get the qualifications on the register, the incentives will be paid. We would certainly encourage appropriate industries to go down that path.

Ms Paul—We may be talking at slightly cross-purposes. The point of this initiative is to offer the incentive to these higher level qualifications for the first time.

Senator CARR—I see. Ms White, in terms of Midfield's, are you able to establish that the 878 apprentices that you have identified all existed?

Ms White—In what regard?

Senator CARR—With regard to whether or not the persons who signed the forms saw the claimant.

Ms White—In the last couple of years, certainly since 2003, it has been a requirement that the Australian Apprenticeships Centre physically conducts the sign-up. So the Australian Apprenticeships Centre will have met both the employer and the apprentice through that process.

Senator CARR—That is since 2003?

Ms White—That has been in place since 2003. Since 1998, it has been a requirement for the Australian Apprenticeships Centre to facilitate the sign-up, but in the early years they were not always required to have a physical presence. I can also advise that my records show that of the 878 Australian apprentices, 70 are AQF3.

Senator CARR—I see. So we really are screaming out for the qualification rate AQF3, aren't we?

Ms White—Ninety-two per cent are certificate IIs.

Senator STEPHENS—Going back to Skills for the Future, does that tie you in to specific career paths or occupations?

Mr Davidson—Not into career paths. There are four priority groups.

Ms Cross—Is this the vouchers program?

Senator STEPHENS—Yes, the incentives.

Ms Cross—The vouchers program has identified four groups: 60 per cent of the vouchers are for people who are in the workforce but who have no year 12 or higher qualifications; 20 per cent are for some categories of income support clients—people on disability support pension; 10 per cent are for clients of Job Network who are participating in active job search; and, 10 per cent are for people outside the labour force.

Senator STEPHENS—In particular occupations?

Ms Cross—No. The vouchers program is open to anybody who is looking to get a year 12 or equivalent qualification.

Senator CARR—In respect of the announcements with regard to Skills for the Future for higher technical skills, do you yet have any figures on the number of take-ups and the number of businesses?

Mr Johnson—We would be able to provide you with an indication of the number of commencements both for those higher level qualifications since 1 July and for some of the new qualifications announced for support from 1 January this year.

Senator CARR—How many are involved there?

Mr Johnson—To date we have 46 commencements in a range of seven different qualifications.

Senator CARR—How many businesses?

Mr Johnson—We would have to take that on notice.

Senator CARR—I take it that this is a program covered by the same advertising?

Mr Johnson—That is correct, as Ms Paul indicated earlier.

Senator CARR—With regard to the conflict of interest issue with the Institute for Trade Skills Excellence that was raised at the last round of estimates by Senator Wong, have you been able to finalise the quality assurance arrangements?

Ms Cross—We provided the committee with a copy of the conflict of interest protocols at the last hearing. Our understanding is that every institute board meeting considers conflict of interest issues as a matter of course as part of their agenda.

Senator CARR—And the parties involved in the new institute, ACCI, AiG, BECA, all run their own training programs, don't they?

Ms Cross—BECA is not a member of the institute, Senator.

Senator CARR—But ACCI and AiG are—

Ms Cross—And the National Farmers Federation.

Senator CARR—Yes, and the NFF. So I take it that every board meeting would have some session on conflict of interest?

Ms Cross—As I said, I believe it is a standing agenda item.

Senator CARR—Given that these organisations are actively engaged with their own companies, has the department reached any view as to whether that is a conflict to these organisations setting the preferred provider status for other training providers?

Mr Davidson—I think we answered at the last hearing that only one of the bodies has a training provider, a registered training operation.

Senator CARR—Is that ACCI?

Mr Davidson—No, that is the Australian Industry Group.

Senator CARR—Is there a conflict for AiG in that?

Mr Davidson—If there were, I am sure the person who was nominated by the AiG to the board of the institute would declare it at the relevant time.

Senator CARR—I will put the rest of my questions on notice. Thank you very much.

[8.01 pm]

CHAIR—We have finished with vocational training. Thank you very much, ladies and gentlemen. We will move along to the Schools Resourcing Group, and I welcome officers to the table.

Senator NETTLE—I wish to ask you about comments by the minister and the Prime Minister in relation to standards in schools and in particular the minister's recent comments in the National Press Club about this issue. I also want to ask you whether the department has done any work on standards in public schools, in particular research on which the minister would be basing her comments.

Ms Paul—There has been a range of work done over a long period of time. In particular, the most recent piece of work was by the Australian Council for Educational Research, which looked at five subjects in year 12 and compared curricula across the country and made comments about similarities and disparities and so on. The report, which is available, makes an observation, which the minister is reflecting on, which was that it is difficult to tell where the consistency lies in standards because all these systems are different. So it is not particularly work on one sector or a different sector but work across year 12 and across five subjects. That is one piece of work and the most recent and major piece of work.

Senator NETTLE—Has the department done any work?

Ms Paul—We have done work particularly through the Ministerial Council on Education, Employment, Training and Youth Affairs, MCEETYA, on a range of relevant issues. For example, what would an Australian certificate of education at year 12 involve? We have also looked at the standardisation of the national testing which is done at various year levels and so on. There is a wealth of work which goes to setting standards for subjects at certain levels across the country, both by way of the content, which MCEETYA calls statements of learning, and by way of assessment.

Senator NETTLE—I am interested not so much in the idea of the national curricula but more in what the existing standards in public schools are. Have you done that kind of work?

Ms Paul—The work we do on a national level—as I say, normally with our state and territory colleagues through the MCEETYA processes—goes to testing some of the fundamentals at various levels. For example, there is a range of national benchmark tests for literacy and other things at years 3, 5 and 7 and, shortly, year 9, which the minister also referred to. The exercise to get a national test against a national benchmark of course involves trying either to set a standard or to use a methodology to make the standards equivalent or comparable across the different jurisdictions.

Senator NETTLE—The minister and the Prime Minister have both made comments specific to history, English and geography. Has the department done any work on each of those specific areas?

Ms Paul—Yes, history in particular. The Prime Minister and the minister hosted a history summit of historians and other experts, like curriculum experts and so on. Work which is still going on has arisen from that summit, so it has not come to completion yet. The other areas, particularly English, have been studied by the Australian Council for Educational Research.

Senator NETTLE—I am interested in hearing not so much what other people think should be taught in history but more whether the department has actually looked at what is being taught in history as a basis for which the minister or Prime Minister might make their comments.

Ms Paul—The department did not do that piece of work. We contracted the piece of work to a participant in the summit, and we can get the details. Perhaps my colleagues can offer the details.

Mr Simpson—For the Australian History Summit, the department commissioned Associate Professor Tony Taylor from Monash University to do an audit of what is currently taught across the states and territories. He presented his paper to the summit.

Senator NETTLE—Was that looking at government schools or non-government schools?

Mr Simpson—That was looking at what the state and territory government curriculum requirements were. Usually they apply both to government and non-government schools, although that varies a little from state to state.

Senator NETTLE—Has the department done any analysis or investigation into the teaching in non-government schools particularly and into standards across the board or in any particular area?

Mr Simpson—No. We do not do any differentiation in that sense.

Ms Paul—The MCEETYA work, for example, is as relevant to the non-government sector as it is to the government sector.

Senator NETTLE—I understand the processes whereby state government education ministers are responsible for what is taught in public schools. My question is about what accountability processes the federal government has, given that the federal government boasts about having responsibility for non-government schools. What accountability exists there?

Mr Burmester—The actual requirements on both government and non-government schools in a particular state are usually determined by the board of studies of the relevant state, which is usually an independent statutory authority of the state government and separate to the department of education.

Senator NETTLE—I understand the state government processes. I am asking whether there is any federal government accountability for the \$20 billion of funding that is given to the non-government school sector.

Ms Paul—We thought you were asking about curriculum development. Of course there is financial accountability.

Senator NETTLE—I am trying to indicate that I do not want the state government thing; I am interested in the federal government level.

Mr Burmester—All schools, both government and non-government, are accountable, through their funding agreements with the Commonwealth, for the funds they receive. For example, both government and non-government schools have to participate in the national testing arrangements and meet a range of mandatory requirements such as state registration and so on. So there are various levels of accountability. Non-government schools, in addition to the educational aspects, have to provide a financial questionnaire that goes to the financial viability of the school and the use of the funds that we provide. So there is a financial acquittal process as well as the education side of it.

Senator NETTLE—What kind of accountability is there on standards and curriculum in non-government schools?

Mr Burmester—Through their involvement in national testing and the reporting to parents arrangements, they are subject to the same requirements as state government schools. Whereas states generally report on the whole of the government sector, most of the independent schools have to report on a school-by-school basis; they have to undertake and participate in those requirements on an individual basis, not just a whole system basis.

Senator NETTLE—It is different in that the state minister is not responsible for what is taught in non-government schools. That is why I am asking these particular questions.

Mr Simpson—That varies from state to state. In some states, through the independent boards of studies, which report to the minister, the curriculum requirements apply to non-government schools as well as government schools. I will give you another example. As of August last year, there are agreed national statements of learning in five areas—English, maths and so on. As part of the funding agreement with education authorities—both government and non-government—the federal government is requiring that those statements of learning be implemented from the beginning of 2008. That will apply equally to government and non-government schools.

Senator NETTLE—So the comments the minister has been making in relation to concerns about standards apply to non-government schools as well as government schools?

Ms Paul—Yes, and she answered a question at the Press Club which went to that issue.

Senator NETTLE—Is the department aware of concerns that have been expressed about the standards operating in Exclusive Brethren schools—in particular, concerns about them not teaching an approved curriculum?

Mr Burmester—Each of those schools is subject to the same requirements as everyone else—to meet the requirements of the statements of learning—but that is prospective from 2008. They are required to participate in the national testing regime and reporting to parents and so on. There is one exemption, if you like, in relation to Brethren schools—which is broader than Exclusive Brethren—which goes to the requirement under the current funding agreements to participate in national sample testing of ICT. The former minister provided an exemption in that regard.

Senator NETTLE—When was that provided?

Mr Burmester—I believe it was 2005.

Mr McDonald—That was provided in 2004.

Senator NETTLE—Was that in response to a request to the minister by the Exclusive Brethren? Maybe you can explain to me the process by which that exemption came into place.

Mr McDonald—My understanding is that the Brethren made representations to the minister in relation to the fact that they do not use ICT equipment in their schools and therefore the sample testing in relation to ICT would not be meaningful. The minister provided an exemption under the act in relation to ICT sample testing only. ICT sample testing is undertaken every three years. I think the first test was in 2005 and the next one is in 2008.

Senator NETTLE—If you are able to provide to the committee any more detail about the process by which that occurred—in particular, a copy of any correspondence and requests from the Brethren and the minister's exemption as well—that would be good.

Mr McDonald—We will take that on notice.

Mr Simpson—It is worth stating that all non-government schools are registered by state authorities, not the Australian government.

Senator NETTLE—We are talking about the process of the federal minister giving an exemption to the Exclusive Brethren, so I am interested in how that occurred. Why was the exemption granted?

Mr McDonald—As I mentioned, the Brethren schools do not operate ICT equipment. A sample test in relation to ICT would produce an invalid result. The kids cannot undertake the test because they do not access ICT within the school. It was basically because of what was taught in the school and the application of the sample testing to that.

Senator NETTLE—They are not tested in using computers because they do not use computers?

Mr McDonald—In relation to that sample test, an exemption was provided by the former minister.

Senator NETTLE—Is the exemption an indication that the minister at the time did not think it was important to be able to use computers?

Mr McDonald—I do not know the basis for the minister's exemption. However, I have indicated the reason why, I imagine, the minister provided the exemption—that is, they do not use ICT equipment in Brethren schools and therefore a sample test of the kids around ICT would provide an invalid result.

Senator NETTLE—Were there any concerns that people who do not use computers will not be equipped for living in modern society? Or was that not a consideration of the minister in this case?

Mr McDonald—As Mr Simpson mentioned earlier, my understanding is that the state authorities register those schools and what is taught in those schools. The exemption provided in this case was a result of the circumstances in the Brethren schools—that is, they do not use ICT equipment and therefore the applicability of a sample test would be invalid.

Senator NETTLE—It was a federal minister who gave the exemption from computer testing. The previous federal minister and the current federal minister have been commenting

on concerns about the standards in schools and the level of people's employability when they leave school. That is why I am asking for a correlation. We have a minister who says we need people to be employable but at the same time is saying that a school does not need to be tested on computer skills. To me, that seems to be a contradiction.

Ms Paul—I do not think we can speculate further on the minister's thinking three years ago. We have taken your question on notice.

Senator NETTLE—And that exemption has continued to the current minister as well?

Ms Paul—It does not have to be a refreshed exemption; it related to a series of tests.

Senator NETTLE—At the time the minister made the decision to grant the exemption was there any requirement for the minister to justify the reasons for the exemption?

Ms Paul—I think we need to take that on notice, as with your earlier question.

Senator NETTLE—Surely you can tell me whether there was any requirement to provide a justification for the exemption?

Ms Paul—I am not sure, so I think we should probably take that on notice.

Senator NETTLE—You do not know whether the minister needs to give a reason for exempting people from computer testing?

Ms Paul—I imagine it is a ministerial decision to exempt. I do not believe the minister was required to give a reason under the act. Perhaps my colleagues can clarify that.

Mr Burmester—There is no requirement in the legislation or in the administrative arrangements for the funding agreements that compels the minister to provide a reason. I think that is your question.

Senator NETTLE—Yes, it is the question. I find it quite extraordinary that the minister can exempt people from doing computer testing and not have to give a reason why.

Ms Paul—I think the legislation allows an exemption and does not require that a reason be given. At any rate, we have taken that on notice.

Mr Kriz—What the secretary has said is absolutely spot on. It is not so unusual in the way that legislation is structured, in the sense that this does not take any rights away. Reasons are normally required under legislation if particular proprietary rights or particular obligations are placed on people. This is not the case; this is actually a situation which is beneficial to the people who have made the application to the minister—from their perspective. You might disagree about that but, from their perspective, it is beneficial to them—and the legislation does not require it.

Senator NETTLE—What about the right of the child to learn how to use a computer?

Mr Kriz—Reasonable people can differ on what people's religious beliefs are, and so on. I am not going into that, but I am suggesting that, in terms of how legislation is set out, this is not unusual and it is precisely as the secretary has explained.

Ms Paul—It might be worth adding that the legislation does allow parents to withdraw their children from participating in these tests in a broader sense, so there is some empowerment of parents here too. So you would imagine, of course—even without the

exemption that the former minister made—parents of children at these schools would have withdrawn their children from these tests, which would have required the sample to have been redrawn anyway, so it probably would have had the same outcome.

Senator NETTLE—But Mr Kriz was talking about how there is no removal of rights here, and that is my question: is it not a removal of rights? Does the child not have the right to learn how to use a computer in school?

Mr Kriz—The child was not making the application; the application was made by the particular school body—

Ms Paul—I think that the rights of the child is not a matter for the federal government in this instance—or, indeed, for DEST. We have set out what the legislation sets out, and I am happy to do that again.

Senator CARR—Surely there are matters of rights.

Senator NETTLE—The federal government is a signatory to the Convention on the Rights of the Child, so I think that the rights of the child have some play in—

Ms Paul—We have set out the legislation and I am very happy to set that out in a more clear way for you.

Mr Kriz—The only point I was seeking to make is that the fact that reasons do not need to be provided is not at all unusual in these sorts of circumstances, with legislation where you are not imposing an obligation and you are not taking anything away from the person who is seeking that you exercise discretion. Reasons are normally provided in the converse situation rather than in this sort of situation.

Senator NETTLE—When is the decision up for review?

Mr Kriz—It is not a decision that is up for review. The minister has determined how, in accordance with the minister's legislative ability, that part of the legislation will apply to that particular school.

Mr Burmester—Regulations and funding agreements apply for the quadrennium 2005 to 2008.

Senator NETTLE—So it will be up for review in 2008?

Mr Burmester—There will need to be new funding agreements reached with all school authorities from 2009 onwards.

Senator NETTLE—But will there have to be a new application for that exemption to continue?

Mr Burmester—It depends on the requirements and conditions that are imposed through the subsequent funding agreement.

Senator NETTLE—Who is going to make that decision?

Mr Burmester—The quadrennium arrangements for school funding are settled and determined in the period leading up to the quadrennium by the federal government, and they are negotiated with the schools under the legislation.

Senator NETTLE—So the government will decide in one year's time whether or not that exemption is up for review or continues?

Mr Burmester—The government will determine the requirements it will impose on a whole range of matters with regard to all school authorities for the period beyond 2008.

Senator NETTLE—But, in this instance, the way you described it was: when the funding model comes up again, that issue will be decided.

Ms Paul—The short answer to your question is yes, by way of the fact that there will need to be consideration of such an exemption because a new funding agreement would need to be struck.

Senator NETTLE—And the minister could decide to discontinue the exemption?

Ms Paul—Of course that is a matter for the minister at the time.

Senator NETTLE—I am just saying they could; I am not saying whether or not they will. We have dealt with the issue of computers. I would like to read to you a quote from a principal of an Exclusive Brethren school in Tasmania. He said:

Many modern-day novels are rejected on the basis they are contrary to the truth of scripture.

There was also a comment in the *Australian* newspaper on 25 September last year from a former teacher in an Exclusive Brethren school who said:

The children are told what jobs they will do and who they will marry. They were not being equipped to live in the outside world. The Brethren were cutting off the children's pathways.

The quote goes on to say that one science book had all the chapters on reproduction cut out and that most modern texts were banned. Is that a concern in terms of the standards in Exclusive Brethren schools?

Ms Paul—I do not think we can confirm those reports, but what we can say, which Mr Burmester was getting to before we got onto ICT, was that the schools, like all other schools, have to comply with a quite large suite of regulations and other requirements, financial and otherwise. At present these schools are meeting those requirements.

Senator NETTLE—I wanted to ask you about the teaching of intelligent design as science and whether the government has a view on whether it is appropriate for intelligent design to be taught in science class.

Mr Simpson—The minister has expressed the view that the teaching of intelligent design does not belong in the teaching of science. If parents in that school community wish to teach that as a religious belief, that is their right. But the minister has expressed the view that it does not belong in science. The science curriculum documents that. At the state level, we certainly do not include coverage of intelligent design.

Senator NETTLE—Does the government know whether intelligent design is being taught as science?

Mr Simpson—Again, the question of the curriculum in schools is a matter for state governments to determine. The Australian government does not have the power or the responsibility to register schools on the basis of the curriculum and the practices within that school. That is not a federal government responsibility.

Senator NETTLE—Maybe I will ask the question specifically to non-government schools, because we know about what is being taught in government schools. I am from New South Wales and the state minister is responsible for what is being taught in schools. We know what is being taught there and there is certainly the view that you indicate that the federal minister has also expressed: it is determined at the state level. Given that the federal government boasts about its primary responsibility for the funding of non-government schools and the minister's position that you stated in relation to teaching science, does the federal government know whether intelligent design is being taught as science in any non-government schools?

Mr Simpson—The federal government would not know that. To take your example of New South Wales, I understand that it is the Board of Studies in New South Wales that registers non-government schools and therefore is responsible for the initial registration—or not—of those schools and for the continuing registration of those schools. So that responsibility for monitoring what is taught in those non-government schools would be the responsibility of the New South Wales Board of Studies.

Senator NETTLE—So, if the federal minister has the view that intelligent design should not be taught as science—a comment that you have indicated that the minister has made—does the minister or the government have a view about whether it should be funding the teaching of intelligent design as science? You have a view about whether or not it should be taught; now I am asking about whether the government has a view about whether it should be funding the teaching of intelligent design as science.

Ms Paul—The federal government does not fund schools on the basis of subjects.

Senator NETTLE—The federal government does provide a substantial amount of funding to non-government schools.

Ms Paul—Yes, on the basis of enrolments, but I was just clarifying.

Mr Burmester—The requirement under the current funding agreement is that, from 2008, all schools must incorporate the statements of learning in their curriculum, including in the area of science. That requirement sets out a core curriculum in each of the subjects in the school that are covered by the statements of learning. Schools can and do undertake a range of activities beyond those requirements—and there would be no way that the federal government could affect this. So the schools will have to meet the requirements of the statements of learning. If a school chooses to go beyond those and teach additional material or undertake additional activities, that is up to the school and the school community.

Senator NETTLE—I want to ask you about the minister's statements in relation to performance pay. Presumably this would involve paying teachers more. Do the government or the department envisage that they will increase funding to public schools in order to increase the pay of teachers?

Ms Paul—That is not known yet. What the minister said at the Press Club was that she was interested in taking a paper to the next meeting of MCEETYA, the ministerial council of state and territory ministers, which is in April, to try to work in a collaborative way with them on what such a system might look like. So the question of funding is some way down the track at

this stage. The first questions will be what might such a system might look like, whether they interested in participating, what could be covered by it, and so on.

Senator NETTLE—At this stage could there still be a model whereby there was not additional funding provided?

Ms Paul—It is just not known.

Senator NETTLE—Can you indicate what work the department has done on the issue of performance pay?

Ms Paul—Yes. We have done a range of work on what sort of things might be able to be considered, and we will now need to do more work towards a paper which the minister will take to the April MCEETYA meeting. So we are just starting that now.

Senator NETTLE—Are you able to outline any of what that work is?

Ms Paul—No, I am not, because it would still be in the nature of advice to government.

Senator NETTLE—Has the department done any work on producing reports about the impact on schools of the publishing of league tables?

Ms Paul—I do not think we have done work specifically on it but we have certainly been interested in a range of approaches—for example, the Victorians have a particular way of approaching it and so on. It has not really been so much a matter of league tables; it has been a matter of what the view is on what performance information schools should be offering to parents to help parents make those terribly important decisions that they make about their children and their school. The current legislation for the current quadrennium has regulations in which for the first time there are requirements that schools offer parents a range of performance information.

Senator NETTLE—So parents are already able to get that information?

Ms Paul—There is some information which is required under these regulations that schools will need to offer to parents in one form or another.

Senator NETTLE—There has been criticism about the league table style proposals in terms of whether they are too basic to give an accurate picture of the quality of the school and also about unfairly stigmatising schools. Has the department done any work in those two areas in addressing those criticisms?

Ms Paul—The minister has not actually said that she is looking at league tables, so we have not been looking at league tables. We have been looking at the type of performance information which might be of interest to parents. The first question, if you think about it, is: what sort of information is useful to parents—and indeed to students in terms of their own schooling? The question of how that is presented has not yet been addressed, so that is a question for down the track. Once again, MCEETYA will discuss this issue, I would imagine starting in April.

CHAIR—Could you briefly explain what a league table is?

Ms Paul—What the senator is referring to is a way of presenting performance information about a school which would allow the ranking of schools against each other.

CHAIR—I see.

Ms Paul—What I am saying is that the minister has not actually proposed that approach, and the whole notion of the way that performance information might in the end be presented is yet to be considered.

CHAIR—Thank you.

Senator CARR—Think of the AFL ladder.

Ms Paul—That is where the term comes from. Someone would argue from this state that it is the NRL, but it could be the AFL.

Senator NETTLE—I want to ask some questions about the national chaplaincy program. How many applications have been received?

Mr McDonald—The application process is open until the end of March. We have already had around 200 applications or so that are underway on the online system. We have also had 18,000 or so downloads of the guidelines, so the interest has been quite large.

Senator BARNETT—Eighteen thousand?

Mr McDonald—Downloads of the guidelines.

Senator NETTLE—Do you know how many of those around 200 applications you have received are from schools which already have chaplaincy services?

Mr McDonald—The applications are not complete yet. They are applications that are underway online on the system, so I cannot yet answer that question.

Senator NETTLE—Can you take that on notice for when you can answer that question?

Mr McDonald—Yes.

Senator NETTLE—Do you know whether you have received any applications from Exclusive Brethren schools?

Mr McDonald—No, I do not.

Senator NETTLE—Can you also take that one on notice?

Mr McDonald—Mr Powell might be able to answer that.

Mr Powell—As of later this afternoon, I am not aware of any.

Senator NETTLE—With respect to who, by definition, is recognised as a chaplain in the guidelines—someone that the school community recognises and then somebody who is recognised by a formal institution—I note that there is an exemption clause if you cannot get a religious institution to endorse that person. I wonder whether the school community could get somebody who was effectively like a school counsellor? Could they apply through the system?

Mr Powell—Clearly, the program is targeted at somebody who can provide services that also involve spiritual advice. That exemption, or that out, you speak of is to address particular needs of particular faiths, such as the Muslim community, so that they can come forward with other endorsement arrangements if need be.

Senator NETTLE—That could presumably fit into the existing one?

Mr Powell—Not necessarily.

Senator NETTLE—As a religious institution?

Mr Powell—No, not necessarily.

Senator NETTLE—What about an atheist chaplain?

Mr Powell—The way the objectives of the program are set up would preclude that. Presumably, having someone endorsed by a religious institution would be a bit of a problem.

Ms Paul—The essence of the program, as Mr Powell said a moment ago, is about spiritual guidance and support.

Senator NETTLE—Why is the government particularly focused on believing that religious guidance is an addition to the education system we have in this country?

Ms Paul—At the time this program was announced and, I think, at the last hearing we talked about some of the background to this which was that there had been increasing calls from a range of people and school communities and communities broadly for this sort of extra support to be offered through schools.

CHAIR—This will be your last question, Senator.

Senator NETTLE—I am interested in what the department thinks religious guidance adds to existing education standards in Australian schools?

Ms Paul—The nature of this program is to offer spiritual guidance and support to school students and to the school community. It is not so much a matter of the curriculum; it is more a matter of the school community and a support to the school community. Interestingly, with some of the recent terrible car crashes in your state, for example, you see a lot of media pictures of flowers at the school gates and so on. The notion of this program is to address what has been expressed as a need for a spiritual centre in a school community, if the community is interested in that sort of approach.

Senator NETTLE—That is what school counsellors do in my state; deal with school communities on those issues.

Ms Paul—Yes, counsellors also deal with those issues.

Senator BARNETT—Just on this point regarding the school chaplaincy: in Tasmania, Scripture Union is the largest provider of chaplaincy services available and they have a very high reputation. The services that they provide are spiritual and pastoral care, and we all appreciate it as far as I am concerned. I just want to get clarity from you about the nature of the services that are being offered and whether they are voluntary. You have had questions tonight and I just want to get your confirmation that it is a voluntary program with the support of the school community and that they do not have to receive the chaplaincy program if they do not wish to.

Ms Paul—That is right. The school community does not have to apply and, if they do choose to apply, they need to demonstrate that the school community is interested. Individual students do not have to be interested; it is completely voluntary from go to whoa.

Senator BARNETT—Thank you. I think that certainly helps.

CHAIR—Senator Carr.

Senator CARR—The minister announced that there will be 20 Australian Technical Colleges operating on Monday, 12 February. How many are operating now?

Ms Paul—Just for the future, that is now actually under the vocational and education area which we have been through. It is showing there.

Senator CARR—Since when?

Ms Paul—I think our people have stayed on.

Senator CARR—When did that change occur?

Ms Paul—A couple of estimates ago.

Senator CARR—Last year?

Ms Paul—Last year or the year before. I cannot remember.

CHAIR—It is listed under that, you are quite right, Ms Paul.

Ms Paul—I think a lot of people have stayed. Anyway, 21 will be operational in 2007 and the last one, which will open during 2007, is the Pilbara which is due for midyear start.

Senator CARR—How many of them met their target enrolments?

Ms Paul—We do not precisely know yet, because they are all just opening their doors but they have reported that they are likely to get registrations from parents and so on, they are certainly meeting their targets and, overall, I think they have slightly more.

Senator CARR—How many students are there overall?

Ms Paul—It is close to 2,000, which is slightly more than we had anticipated.

Senator CARR—What is the per capita funding then for the 2,000 students?

Ms Paul—That is difficult. I would need to take it on notice. The reason why it is particularly difficult is that the current funding includes the set-up costs. So the ongoing funding for a student is based around normal Commonwealth funding but the appropriations which have been made actually go to set-up, so it is a bit of an apples and oranges thing to try to do on a per student basis.

Senator CARR—Is it possible to get a table which tells me where the colleges are, the number of students, what the target numbers were, whether or not the students were enrolled as school based apprentices and the number that are school based apprentices.

Ms Paul—That is fine. I think we have provided some of that, but we can draw it all together.

Senator CARR—You must know how many are enrolled, because you are funding them.

Ms Paul—That is right.

Senator CARR—And what it has cost for each of those colleges to be established.

Ms Paul—Yes.

Senator BARNETT—Do you have the figures for Tasmania; the enrolments for Northern Tasmania and the status?

Ms Paul—We do. I do not have them with me here, but we are certainly able to get them for you.

Senator BARNETT—You can provide that?

Ms Paul—Of course.

CHAIR—Do you have more questions?

Senator CARR—I have a few more. Can I ask you about the current status of the Lismore-Ballina College?

Ms Paul—A funding agreement has not been made there, so we are still in the consideration phase.

Senator CARR—These 21 colleges have been established. Have they all got the same facilities as other schools, canteens, sports facilities, libraries?

Ms Paul—There are different models but, yes, the notion is that these are schools which offer students a year 12 in the normal way, but they focus particularly through the school based apprenticeships on those particular skills shortage areas. Yes, I would expect that the students would have access to the facilities that they need to focus on their courses.

Senator CARR—Have you had any concerns expressed to you that there is considerable waste in the establishment of campuses of fewer than 100 students, for instance—the Ferntree Gully site? How much are you spending at Ferntree Gully?

Ms Paul—I cannot tell you that here.

Senator CARR—It is a substantial amount, isn't it?

Ms Paul—No, I have not had that view put to me.

Senator CARR—Have you heard any concerns about the economies of scale of this project?

Ms Paul—I have not had that view put to me, no. Most of these schools, like any new school, start small. Any new school, as you well know, will start with a few enrolments and build up over time. These actually have come on much faster as schools than most new schools would.

Senator CARR—Are you able to tell me what the fee structures are in each of those schools?

Ms Paul—You might recall that the policy is that no additional fees will be charged. We have said here before that the fees that are being charged by these schools, to my recollection, range from zero to about \$2,000 a year.

Senator CARR—But why do you have such a variation between nought and \$2,000?

Ms Paul—The policy is 'no additional fees' so, if this is built on an existing non-government school, for example, as any non-government school is able to do, it might charge fees. We have provided the levels of fees here before.

Senator CARR—When is the program likely to be reviewed?

Ms Paul—The program has only just started.

Senator CARR—So it must have a built-in review and evaluation process.

Ms Paul—It would and I cannot remember it, I am sorry. I will have to take it on notice.

Senator CARR—Can you take that on notice?

Ms Paul—Sure.

Senator CARR—The SES funding review: where does that stand at the moment?

Mr Burmester—It is still being finalised within the department.

Senator CARR—So it has not actually commenced?

Mr Burmester—We have undertaken consultations and received representations from a number of independent non-government school bodies and we are in the process of finalising that report.

Senator CARR—Do you have the terms of reference yet?

Mr Burmester—We have provided the committee with a description of the intention of the review, but it is an internal review to government.

Senator CARR—But surely, with the terms of reference, this is a review of the SES funding model, isn't it?

Mr Burmester—That is right, and we have provided the description and the scope document to the committee—I believe we have anyway. That is my recollection.

Ms Paul—Yes. We went through the objectives last time.

Senator CARR—Are there time lines?

Ms Paul—The time line of course formally is for the next quadrennium. That will start in 2009. Our own time line is that we would like to get it done well before that.

Senator CARR—I should hope so.

Ms Paul—That is right.

Senator CARR—And this is for a program now—how much is that out of the quadrennium? How many billions?

Mr Burmester—Paid through the SES arrangements, it is probably \$20 billion.

Senator CARR—It is a \$20 billion program.

Mr Burmester—Yes.

Senator CARR—Have we had a secret in-house review?

Ms Paul—No, it has not been a secret review. As we said before—and I think at the last estimates we gave the list of people that we had consulted with. We have also received some submissions and so on. Really the commitment was to talk with everyone in the sector that is affected by having a look at the nature of the SES system, and that is what we have done.

Senator CARR—I will put a series of questions on notice regarding teacher performance. I take it you have undertaken some work on the national system of performance based pay?

Ms Paul—We have done some initial work, as I said before to Senator Nettle, on what some of the parameters might be and the next step will be to prepare a paper for consideration by MCEETYA.

Senator CARR—I only have a few minutes. In regard to Investing in Our Schools program grant applications, which members of the opposition were advised of grant applications in their relevant electorate or duty electorates?

Ms Cook—The department prepares letters for all MPs and they are distributed through the parliamentary secretary's office.

Senator CARR—I do not recall receiving any for Victoria. Is there a reason for that, or is my mailing system somehow inadequate?

Ms Paul—It would have been sent to the local MP.

Senator CARR—So senators are not told?

Ms Cook—Duty senators are told.

Senator CARR—I am a duty senator. Why wasn't I told?

Ms Paul—Government duty senators and members. We have been through this before.

Senator CARR—I know. I just want to be clear. You are saying that opposition senators are not told.

Ms Paul—I remember a discussion we had a couple of estimates ago in which we said that government senators and members are notified and non-government members are notified of projects in their electorate.

Senator CARR—So when was I notified?

Ms Paul—I have just answered that question.

Senator CARR—I do not think I was, was I?

Ms Paul—No, you are a senator.

Senator CARR—Can I ask you about the Islamic college? Recently there has been some discussion about audit arrangements. Ms Paul, you will recall I asked a couple of years ago about the Islamic college and compliance.

Ms Paul—No, I do not actually, but I am sure it will come back to me.

Senator CARR—Let us have a look and just see where we are.

Ms Paul—It will come back to me when you ask your questions, I am sure.

Senator CARR—My recollection is that there were some questions raised about a breach of the guidelines. I understand there has been police action taken recently in regard to the Islamic college in Western Australia. Is that right?

Ms Paul—That is correct.

Senator CARR—Can you explain to the committee why that was necessary?

Ms Paul—I suspect we are not able to because it is currently actively in front of the police, but Dr Bridge can go to that question.

Dr Bridge—A couple of weeks ago the Western Australian police executed some search warrants on three Islamic colleges in Western Australia. The Western Australian police are leading that investigation and we are not be appropriate to comment further about that investigation, given that it is current.

Senator CARR—Let me talk to you about another school then: the Malek Fahd Islamic School in Sydney. Can you confirm the receipt of \$11 million in Commonwealth grants annually?

Dr Bridge—I am not able to answer that question at this point.

Senator CARR—It is in Bankstown.

Mr Burmester—I think we would have to take that on notice.

Senator CARR—It has an SES score of 91.

Ms Paul—We will have to confirm that on notice.

Senator CARR—Thank you. Funding was guaranteed from 2005 to 2008.

Ms Paul—Okay.

Senator CARR—A newspaper report says that it paid \$900,000 a year rent to the Australian Federation of Islamic Councils, which owns the land on which the school stands. The Bankstown council valued the land at \$3 million. Unimproved land value there normally attracts rent of about \$240,000, yet they are being charged \$900,000. The school reported to charge fees for accounting fees, cleaning costs and other items and the total amount charged to the school amounted to two thirds of the annual \$2 million budget. The *Australian* reported—this was on 25 March; it is not exactly a secret—the school was likely to raise \$1.5 million. In your investigations of the acquittals for the use of Commonwealth moneys, are you able to have a look at the accounts to establish what rents are paid?

Ms Paul—My colleagues can answer in more detail. The schools are required to fill in their financial questionnaire.

Senator CARR—Are you satisfied that the questionnaire has been filled in accurately?

Ms Brain—I am not sure whether the financial questionnaire goes to rent. The information collected is to monitor ongoing incomes and expenditures. Certainly, we receive the detailed financial information from the school and we also received signed-off audited statements regarding the accuracy of the information provided in the financial questionnaire.

Senator CARR—You would have received signed-off audited statements in Western Australia as well, wouldn't you?

Ms Paul—I could not say that. But, in this case, thank you for the information; we will have a look at it.

Senator CARR—Have you had an opportunity to check whether there are 1,750 students enrolled at the school?

Ms Paul—My feeling would be that we cannot answer that, so I think we will have to take it on notice.

Senator CARR—You cannot answer that?

Ms Paul—I do not think we have the answer here. We are happy to take it on notice.

Senator CARR—I am just interested. The *Australian* on 6 June claimed that the Australian Federation of Islamic Councils gains most of its income from rent charged to its five affiliated schools. Has the department examined the accounts of those five schools?

Ms Paul—I am not sure. This is going back—

CHAIR—Senator Carr, both the 25 May and the June description, I take it, relate to 2006.

Senator CARR—Yes.

CHAIR—You did not give the year and I just wanted to confirm it.

Senator CARR—It was 6 June 2006.

CHAIR—Thank you.

Ms Paul—That is some time ago now, so I suspect we will have to take on notice what action we took at the time.

Senator CARR—I raised questions some year ago about this Western Australian example and was told that we had nothing to worry about and that the audit provisions of the department were in such excellent shape that I was mistaken. Now I find there has been a police raid. I just wonder whether or not your audit provisions are sufficiently robust to pick up statements made in the press concerning a number of schools funded by the Australian government and whether or not any action has been taken about those press reports.

Ms Paul—While we cannot comment at all on the police raid, I have said that I am more than happy to look into the issues you have raised with these other schools in the other state.

Senator CARR—How many schools have been investigated or have been the subject of compliance audits?

Dr Bridge—You have asked two separate questions. With investigations, I would have to take on notice over what time period you would like that data.

Senator CARR—Let us just take it over the last three years.

Dr Bridge—I do not have the figures in front of me. Off the top of my head, a handful of investigations would have been conducted on schools by the investigations unit in the department. In addition, a range of compliance work, monitoring and post-enumeration survey and audit work is done by the program area that checks on things like those you have raised, such as student numbers. That is done through the course of the year.

Senator CARR—This is a \$20 billion program; how many audits have you done?

Dr Bridge—The audits are done by the program area in this case. I do not have those figures to date, but we could possibly take that on notice.

Ms Brain—I can confirm that, in terms of the audits that are done on the schools, the sample size of schools is two per cent.

Senator CARR—In that two per cent audit that you have undertaken, how many examples have you found of breaches of the guidelines?

Ms Paul—I suspect that we would have to take that on notice, and we are happy to do so.

Senator CARR—Thank you. Quite clearly, a number of breaches have been discovered in the international program; I just wonder whether you have found any in the schools program.

Ms Paul—I imagine we have found various things, but we would not have that information here.

Senator CARR—Time has run out for us. I will have to put the rest of my material on notice.

CHAIR—That is true. We have reached 11 o'clock. I would like to thank you, Minister, Ms Paul and members of the department very much for your attendance here today.

Committee adjourned at 10.59 pm