

Division 15: Jobs, Tourism, Science and Innovation — Service 4, Science, \$44 933 000 —

Mr I.C. Blayney, Chair.

Mr D.J. Kelly, Minister for Science.

Mr R. Sellers, Acting Director General.

Ms L. Dawson, Deputy Director General, Industry, Science and Innovation.

Mr P. Carden, Chief Finance Officer.

Mr R. Sansalone, Chief Financial Officer.

Ms D. Cousins, Executive Director, Science and Innovation.

Ms N. Arrowsmith, Chief of Staff.

[Witnesses introduced.]

The CHAIR: This estimates committee will be reported by Hansard. The daily proof *Hansard* will be available tomorrow. The Chair will ensure that as many questions as possible are asked and that both questions and answers are short and to the point. If an adviser needs to answer from the lectern, will they please state their name prior to their answer. The estimates committee's consideration of the estimates will be restricted to discussion of those items for which a vote of money is proposed in the consolidated account. Questions must be clearly related to a page number, item, program or amount in the current division. Members should give these details in preface to their question. If a division or service is the responsibility of more than one minister, a minister shall only be examined in relation to their portfolio responsibilities.

The minister may agree to provide supplementary information to the committee, and I ask the minister to clearly indicate what supplementary information will be provided. I will then allocate a reference number. Supplementary information should be provided to the principal clerk by Friday, 30 October 2020. I caution members that if a minister asks that a matter be put on notice, it is up to the member to lodge that through the online questions system.

Member for Cottesloe.

Dr D.J. HONEY: Minister, it is a little hard in these initial pages to see which one relates to exactly which division, but I do want to ask an overall question. There is a very substantial jump of almost \$100 million in the total cost of service on page 203. I wonder whether the minister would be able to outline that? I looked at the note, which I thought was a bit *Yes Minister*-ish. It really does not provide any detail at all. It says that it includes adjustments related to the movement in cash balances and other accruals, but I do note that in the following years, it goes back to an amount that is more equivalent to historic amounts. I wonder whether the minister could outline not every item, but the larger, chunkier parts of that \$100 million increase?

Mr D.J. KELLY: What line is the member referring to?

Dr D.J. HONEY: It is net cost of services or the total cost of services in the table on page 203. It is in the bottom part of the table under "Expenses".

Mr D.J. KELLY: Those increases do not relate to the science portfolio.

Dr D.J. HONEY: Do none of those increases relates to the science portfolio?

Mr D.J. KELLY: Not for any significant funding, no.

Dr D.J. HONEY: Thank you.

[7.50 pm]

Mr D.J. KELLY: The only one that does come to mind is that I am advised there was an additional \$5 million in research that was offered to universities on various projects relating to COVID. I would love to have the other \$95 million allocated to the science budget!

Dr D.J. HONEY: We will vote for it.

Mr D.J. KELLY: But so far they will not let me.

Mr W.R. MARMION: My question relates to the service summary table on page 208, which has the cost of the science innovation area. The budget in 2019–20 for the science innovation area was \$41.971 million and the actual expenditure in 2019–20 was \$34.323 million. I wonder whether the minister might like to outline why there was a reduction?

Mr D.J. KELLY: Yes. It was basically re-cashflowing about \$7.6 million out of the new industries fund and the STEM strategy. It took longer to establish some of those programs than we had originally thought. That is the substantial reason, and the \$5 million for the COVID research contributed to that as well.

Mr W.R. MARMION: I think I have worked it out with that other bit. If the minister looks at the numbers, he can confirm whether what I am just about to say is right or wrong. There is a drop-off in the 2019–20 actual because there was a delay in cashflowing the new initiatives fund, and that will catch up in this budget estimate, so the catch-up of that cash flow, in addition to the \$5 million for the universities for research on COVID explains why the budget estimate has jumped up to \$10.5 million.

Mr D.J. KELLY: Yes, that is right. Some of the grants that we gave or had intended to give outside organisations under the new industries fund, with COVID, those groups were not in a position to implement the programs, so that delayed their implementation and the funding as a result.

Mr W.R. MARMION: I refer to the same line item in that table. The minister and I are both very strong supporters of science and innovation; we are both champions of the cause, so it was a little bit disappointing to see that in the forward estimates it drops off. Science and innovation is such an important thing for Western Australia in terms of diversifying the economy and getting more value-added jobs. I am a very strong supporter of science education in schools. The science and innovation portfolio is, through the science awards, is a great place to support diversification of the economy and get young people into doing science and STEM subjects. Can the minister explain why there is a slight drop-off over the forward estimates? Is that going to be rectified in the coming election announcements, minister?

Mr D.J. KELLY: I assure the member that we are not bringing an end to any programs. We have not yet made a decision about funding for the new industries fund, which is funded up until June next year. As the member knows, there is one more budget before June next year so a decision will be made in that budget process about that fund going forward.

The CHAIR: Member for Roe.

Mr P.J. RUNDLE: Thanks, Chair. We can call it a new question but it is quite similar to that. Flowing on from that, I refer to page 212, “Science and Innovation”, which is at the top of the page. Pursuant to what the member for Nedlands said, the minister is talking up science and innovation, but the FTE equivalents are very similar. Has the minister got any forward planning that involves investing in more FTEs as time goes on? That is rather concerning given the importance that the minister has been putting on it lately.

Mr D.J. KELLY: Sure. The member for Roe may not be aware that a lot of the science budget is grants that we provide to external agencies so the FTE within the science budget within government is not reflective. There is not a whole bunch of scientists within Department of Jobs, Tourism, Science and Innovation doing the work. It is largely grant based to organisations, universities, Scitech, the Western Australian Biodiversity Science Institute, the Western Australian Marine Science Institution and organisations of that nature. The FTE is not really, I suppose, a true reflection of the work that gets done. The member is right; the promotion of science and innovation is very much important if we want to diversify the economy, but, yes, pointing to the FTEs within the department does not explain the way that this part of the science budget works.

Mr P.J. RUNDLE: Does the minister have a lot of interaction with the CSIRO pursuant to this portfolio or share any services with it or the like?

Mr D.J. KELLY: I think the member will find that there is interaction between CSIRO and a range of different government departments. The Department of Water, just from my other hat, would have a lot of interaction with CSIRO. A project that we fund directly through this budget is the Square Kilometre Array and through that there is a lot of interaction with CSIRO. CSIRO is one of the great Australian science institutions and it is probably a little bit disappointing that the federal government does not value its advice as much as it used to. I mean, CSIRO has been providing really good advice on climate change for a long time but the federal government does not really seem to take that advice on board —

Dr D.J. HONEY: It is achieving all of the targets.

Mr D.J. KELLY: — but we certainly value the work the CSIRO does.

[8.00 pm]

Mr W.R. MARMION: I refer to page 217 and the “All Other” table, which highlights the new industries fund. I missed this earlier. This question relates to the one that I asked previously. As the minister said, in 2019–20 there was a \$2.5 million drop-off in the fund. I looked at the budget estimate where I thought the fund would be topped up, but, disappointingly, it is only \$4.159 million so it has not really jumped up as much as I would have thought. Normally, there would be an allocation of \$4 million or \$5 million each year. There is a funding drop-off in 2019–20. I would have expected a figure of \$6 million in the budget estimate for the new industries fund. Can the minister explain that?

Mr D.J. KELLY: The member for Nedlands may not be aware, but the new industries fund was a commitment we made when we came to government. It had a financial commitment of \$16.7 million. We will meet the commitment of spending that money over the four years, give or take a bit of relatively loose change. In the last 18 months, there

has been a significant amount of rejigging of some of the expenditure, especially expenditure related to COVID. As I said earlier, some of the agencies and organisations that would have received grants were not able to operate their programs so the money was not spent. When we came to government, we also did not have a full program of \$16.7 million worth of programs. We did not immediately commit some money because we knew that new opportunities would come on board during the four years. With COVID, I think we allocated just over \$1 million to start-ups and small to medium-sized enterprises, particularly around a COVID response. For example, the member would be familiar with the Innovation Vouchers Program. We offered some additional innovation vouchers in response to COVID. It just so happened that there were some very good applications to that program that ordinarily we would not have funded, but given that start-ups were struggling to find funds from other sources, we expanded that. We provided \$100 000 as part of the extend WA program. That explains the variation in the funding from year to year. It was not a set amount of funding; it was the same amount of funding each year. COVID certainly mixed things up a bit. We will spend the full \$16.7 million, give or take some small change, by the time the next election comes around.

Mr W.R. MARMION: Thanks, minister. I understand. It probably would have helped if the table on page 217 showed the items that relate to the science innovation area, because I missed that particular item. From what I can gather, there are the science grants, obviously, the science, technology engineering and mathematics strategy, which is under that, and the new industries fund. There are three items in that table. There may be another couple of items in there—I do not know—which would explain some of the additional funds that are going into the budget estimate to bring the amount up to \$44.9 million. The minister mentioned that the government is funding other things. I do not know whether the National Collaborative Research Infrastructure Strategy is part of that—probably not—but there might be some other ones. Can the minister advise whether any of those other items listed in that table come under science and innovation?

Mr D.J. KELLY: The item that the member picked out, the National Collaborative Research Infrastructure Strategy, is funded. That is a commonwealth program that we kicked in some money for to get some additional research money, which the universities —

Mr W.R. MARMION: Is that the amount that the government kicked in?

Mr D.J. KELLY: Yes, that is right.

Mr W.R. MARMION: Well, that explains it. The minister has now given me the answer. That covers it.

Mr D.J. KELLY: I will take on board the member's comments about the budget. I will speak to the Treasurer, which, I am sure, is what the member did in his time as a minister, and we will —

Mr W.R. MARMION: I know what he will say!

Mr D.J. KELLY: — whip it into shape.

Mr R.R. WHITBY: Minister, I want to stay on page 217, and the table and “All Other”, but I refer to “Science Grants”, which has a budget of just short of \$24 million. Does that include money for cooperative research centres and, if so, what is the actual benefit of funding those organisations?

Mr D.J. KELLY: Yes. Thanks, member for Baldvis, for the question. The cooperative research centres are a commonwealth program. Essentially, they are an opportunity for governments, academia and industry to come together and do research around a particular area and to kickstart economic growth in those areas. The commonwealth program has been going for a considerable period. I think it is fair to say that Western Australia has not been particularly good at winning those CRC funding bids and has especially not been able to get them housed in Western Australia. Where the research headquarters is gives the local institutions a leg-up as far as getting research funding into the state. One of the things I am particularly proud of is that we have been pretty successful in doing that during this period of government. The first one that I was involved in in 2018 was the Cyber Security Cooperative Research Centre, which is headquartered in Joondalup. It gives the state access to \$140 million worth of science research in the area of cybersecurity, which is one of the fastest growing areas of, I suppose, of public policy issues, but also employment areas. We were successful in having that CRC headquartered here in Western Australia. I give Minister Johnston credit for the Future Battery Industries Cooperative Research Centre. Western Australia is blessed with a lot of the minerals that are absolutely crucial to battery manufacture into the future. I think \$135 million worth of research money is involved there. The Cooperative Research Centre for Transformations in Mining Economies has been established and is headquartered in WA. So, yes, I am really pleased that we have been able to play a much stronger role in that process. Although the SmartSat Cooperative Research Centre is not housed in WA, there is a significant node at Curtin University. So having had a period in which, for some reason, the former WA government did not seem to be particularly interested in being involved in that CRC process and, as a result, it denied the state access to a lot of that federal funding; certainly, this term of government has been very successful. The Chief Scientist and every university that I have talked to are very happy with what we have done. We have

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Chair; Mr Dave Kelly; Mr Bill Marmion; Mr Reece Whitby; Ms E.L. Hamilton

a continuing commitment of \$2.5 million over the forward estimates. If we want to be a part of it, you have actually got to kick some money in so we have a continuing commitment in the budget to future CRCs as well.

Dr D.J. HONEY: Minister, would it be possible to get a breakdown of that investment in the form of supplementary information, because it is a little bit opaque with one big line item.

[8.10 pm]

Mr D.J. KELLY: Sure.

Dr D.J. HONEY: It would be interesting to see that. I do not need to hear it now. But I am happy to receive it later.

Mr D.J. KELLY: Yes. If the member would like that in more detail, I would be happy if you want to put it in a question on notice.

Dr D.J. HONEY: That will not come through this year. Maybe I will write a letter to the minister's office.

Mr D.J. KELLY: By all means, if the member writes me a letter, I will write him one back.

Dr D.J. HONEY: Okay.

Mr W.R. MARMION: Just to confirm the minister's response to the question from the member for Baldivis, has some of the \$25 million line item for science grants gone to the Future Battery Industries CRC, the Cyber Security CRC and the mining industries CRC, because I thought they were funded through separate allocations?

Mr D.J. KELLY: Various CFCs are often funded by different departments, but it is my understanding that there is certainly a contribution from that line item to some of those CRCs—the Future Battery Industries CRC, for example. Sometimes they are funded by different agencies as well. The state's total contribution to all those CRCs does not necessarily come from that line item.

Mr W.R. MARMION: I understand that, but the minister said in his answer that some of those grants went to those three CRCs. Is it possible for the minister to advise for this current budget year of 2020–21 —

Mr D.J. KELLY: It is \$700 000.

Mr W.R. MARMION: Is that for all CRCs?

Mr D.J. KELLY: The Cyber Security CRC, the Food Agility CRC, the Future Battery Industries CRC and the SmartSat CRC all received money from that line item with the total being \$700 000.

Ms E.L. HAMILTON: In regards to page 204, under the "Spending Changes" table and the "COVID-19 WA Recovery Plan", and specifically the grants to Western Australian universities for COVID-19 research. Can the minister explain what research these grants are supporting, please?

Mr D.J. KELLY: Sure. That was a response to COVID-19. It was a delegated authority through the Treasurer. Western Australia has some absolutely outstanding research institutions. We all know that institutions around the world were scrambling to find out more about COVID-19 and it seemed sensible to us to make some money available to our universities to see what additional research could be done that might provide some answers. So my understanding is that \$5 million was shared amongst all five WA universities to fund 34 projects. Decisions about the projects were certainly not made by me but by the Chief Scientist, Peter Klinken, who led that process. Areas such as the National Phenome Centre at Murdoch did some work. There was work done on mental health and there were projects to upskill health workers and support the resilience of business. There was a wide variety of work. Work was done to support vulnerable groups and communities, such as the elderly, those with chronic illness, Aboriginal communities, emergency response and health workers and regional communities in general, particularly around things like telehealth. There really was a wide variety of work and a lot of that is ongoing. It is not as though that work was short term. But it was widely appreciated by the university sector and has made a positive contribution to the COVID response.

Mr W.R. MARMION: Was any money directed into research of the virus itself in terms of a possible cure, a vaccine?

Mr D.J. KELLY: As the member knows, universities collaborate across the country and across the world, so I am sure scientists from Western Australia were linked into those projects. I am advised that there were some projects around developing an antibody test and ventilator prototyping. I am not aware that we directly funded things like vaccine trials.

Mr W.R. MARMION: The Harry Perkins Institute of Medical Research, which is in my electorate, has a world-class reputation in research. I just wondered whether any consideration was given to fund the Harry Perkins centre for work on COVID.

Mr D.J. KELLY: As the member would know, clinical trials, in particular —

Mr W.R. MARMION: It would probably need a bit more money than \$5 million!

Mr D.J. KELLY: Yes, that is right. But it is an opportunity for us going forward, given that the government has been very successful at keeping the virus out of Western Australia. It provides an opportunity for institutions that have the capacity to run clinical trials. Obviously, to run a clinical trial, you need a clean trial group, if you like. Yes, there are certainly possibilities into the future.

Dr D.J. HONEY: Minister, like you, I am interested in hydrogen. I refer to page 204 and the COVID-19 WA recovery plan; I see three references there. There is the renewable hydrogen initiative starts off at \$8.3 million this year, but if we go a bit further down, it has an allocation of \$2 million with another \$7.5 million going forward. Further down the page still, towards the bottom, there is a transfer of the renewable hydrogen strategy from the Department of Primary Industries and Regional Development. The government had some success in expanding the empire of half a million and then going on. Further, if we go to page 217, under, “Details of Controlled Grants and Subsidies”, specifically the renewable hydrogen fund, which has a budget of \$150 000 for 2019–20, \$7.7 million for this year and then a bit more than \$3 million for the following year—so a bit over \$6 million. Are they separate amounts? Is the minister able to give an overview of the collective initiatives with renewable hydrogen?

Mr D.J. KELLY: I would love to help out the member for Cottesloe, but that is not part of my portfolio. The Minister for Regional Development is responsible for that.

Dr D.J. HONEY: Fair enough. I thought the minister had had a win over the Minister for Regional Development!

Mr D.J. KELLY: No, we work as a team. There are no blue–green wars on this side of the house.

Dr D.J. HONEY: That is right. There is no “I” in team!

Mr W.R. MARMION: My question relates to page 217 and the science, technology engineering and mathematics strategy that was budgeted over time, which, I guess, is on its way out. Could the minister advise how successful the strategy was and whether the government is considering reinvigorating it with some money in future years?

[8.20 pm]

Mr D.J. KELLY: The feedback that we have got to this point, which, from my understanding is still being evaluated, is that, yes, it has been well received. The member may have seen part of the digital advertising that we have done—Take 2 STEM. That advertising campaign, particularly on various online platforms, I think has been very well received. In addition to that public campaign, we put a considerable amount of resources into professional development for teachers. One of the bits of advice that I got early on was that one of the best things that you can do if you want young people to consider a STEM career is to make sure that the teachers who are in front of them are confident with that area of the curriculum and, you know, can really deliver it in a positive way. We have put probably 1 000 public school teachers through a PD program around STEM and the advice and feedback I have got back is that it has been really well received by teachers. I think that is very positive. There is also a number of programs that we have run—digital and technology skills programs. We funded about eight projects—I do not want to interrupt the member’s conversation—that have been particularly targeted at trying to encourage more young girls to do STEM, and also to encourage more kids from less well-off backgrounds and potentially kids from Indigenous backgrounds and kids in regional WA to study STEM because if you look at the kids who are most likely to do STEM, they are kids from better off backgrounds, certainly in the metropolitan area. All of that is being evaluated and the anecdotal response I get back is that it has been successful and well received. As far as funding into the future, I suppose that will be a decision for our future budgets.

Mr W.R. MARMION: In terms of the other aspect of encouraging young kids—I totally agree with what the minister said—Scitech is another avenue. I was wondering whether the STEM strategy links in with Scitech in any way.

Mr D.J. KELLY: It does. We fund Scitech separately from that strategy so the money there is not money for Scitech but —

Mr W.R. MARMION: Just on that, is money for Scitech in this budget item or is it another item?

Mr D.J. KELLY: It is in the science grants line item, yes.

Mr W.R. MARMION: And how much is it?

Mr D.J. KELLY: Individually?

Mr W.R. MARMION: Just for Scitech.

Mr D.J. KELLY: It is \$8.6 million a year. I think Scitech was probably on the STEM strategy group that put that strategy together so it is very much linked in and engaged in that agenda.

The appropriation was recommended.