

**Economics Legislation Committee**  
ANSWERS TO QUESTIONS ON NOTICE  
Industry, Innovation and Science Portfolio  
2016-17 Supplementary Budget Estimates  
20 October 2016

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**DEPARTMENT:** DEPARTMENT OF INDUSTRY, INNOVATION AND SCIENCE

**TOPIC:** Cooperative Research Centres program & rounds

**REFERENCE:** Written Question – Senator Carr

**QUESTION No.:** SI-124

1. Regarding the administration of the Cooperative Research Centres program:
  - a. Have any appointments been made to the CRC Advisory Committee since July 2015?
  - b. If so, what process was followed in making these appointments?
  - c. Are there any vacancies?
  - d. If so, how long have they existed, and when will they be filled? What process will be followed in making these appointments?
  - e. What is the cost of operating the program? Please advise administered costs and departmental costs separately.
  - f. Please provide the results of the latest analysis of the economic and social impact of the CRC program.
  - g. How many PhD students are currently attached to CRCs?
  - h. How many PhD graduates have come through the CRC program since its establishment?
  - i. Please provided a list of all Australian universities formally participating in current CRCs.
  - j. Please provided a list of all Australian companies formally participating in current CRCs.
  - k. Please provided a list of all international partners formally participating in current CRCs.
2. Please advise the committee of progress in Round 18 for CRCs.
  - a. Did all seven CRCs invited to make a bid in Stage 2 do so?
  - b. Please advise the nature and cause of the difficulties in lodgement of Stage 2 applications.
    - i. What measures have been taken to rectify these problems and ensure they will not be repeated?
    - ii. Were any penalties applied to bids in relation to these problems?
  - c. When will the bid teams be called to interview?
  - d. When will the CRC Advisory Committee make its final recommendation?
  - e. When can these bids expect to hear the final outcome of the round?
  - f. How much funding is allocated to the round?
    - i. How does this allocation compare to recent rounds?
    - ii. How does this allocation compare to the projections for future rounds?
  - g. With regard to the names of proposed CRCs, has the Department been involved in advising bid teams on naming strategy?
3. Please advise the progress of the Round 2 of CRC-Ps.
  - a. How many applications were made?
  - b. When will the successful projects be announced?
  - c. How much funding is allocated to the round?
    - i. How does this allocation compare to Round 1?
    - ii. How does this allocation compare to the projections for future rounds?
  - d. Approximately how many projects do you expect to fund?
    - i. How does this expectation compare to Round 1?

- ii. How does this expectation compare to the projections for future rounds?
4. Regarding the close timing of the deadlines for CRCs Round 18 Stage 2 (20 October) and the CRC-Ps Round 2 (26 October):
    - a. Was the decision to conduct these two labour intensive programs of work at the same time imposed by government, or did the Department plan the timetable this way?
    - b. What effect will this close timing have on the timeliness of results for applicants in each program?
  5. Which current CRCs have been reviewed by the Committee or the Department since July 2015?
  6. Are there any CRCs on a watch list?
    - a. If so, which ones?
    - b. Why are they there?
    - c. How long have they been there?
    - d. What progress have they made since being placed on the watch list?
  7. Have any CRCs had a significant partner withdraw since July 2015, or are any at risk right now of an imminent withdrawal?
    - a. If so, which CRCs and which partners?
    - b. What were the reasons given?
  8. Please advised which CRCs' terms will conclude by the end of 2017?
    - a. What plans are these CRCs developing for wind-up or transition?
    - b. What assistance is the Department giving to help with these end-stages?
    - c. Does the Department harbour any concerns about the preparedness of any of these CRCs for these next steps? If so, which CRCs, and what are the concerns?
  9. In which round was the Impact Tool first utilised?
    - a. Has the Impact Tool been evolved since it was first devised? If so, please specify the nature of and reasons for the changes.
    - b. With several funding rounds now completed with the aid of the Impact Tool, has any systematic assessment been conducted of the alignment of its predictions with the actual CRC outcomes?
      - i. If so, what is the result of this study? Who performed it, and when? Please supply a copy of its report.
      - ii. If not, is such a study planned? If so, when and by whom? If not, why not?

## ANSWER

1.
  - a. Yes. Professor Christobel Saunders and Ms Kylie Sproston were appointed on 20 October 2016.
  - b. Under the *Industry Research and Development Act 1986*, appointments to Committees of Innovation and Science Australia are made by the responsible Minister.
  - c. No.
  - d. Not applicable.
  - e. Administered expenses are published on page 30 of the *Industry, Innovation and Science Portfolio Budget Statements 2016-17*. The Departmental expenses for 2015-16 were \$2.316 million.
  - f. The results are available in the *Economic, Social and Environmental Impacts of the CRC Program, 2012*, Allen Consulting Group, published at [https://www.business.gov.au/~/\\_media/Business/CRC/Cooperative-Research-Centres-Programme-Economic-Social-and-Environmental-Impacts-2012-PDF](https://www.business.gov.au/~/_media/Business/CRC/Cooperative-Research-Centres-Programme-Economic-Social-and-Environmental-Impacts-2012-PDF).

- g. As at 30 June 2015, CRCs reported 845 full time equivalent PhD students attached.
  - h. As at 30 June 2015, CRCs reported 3,881 students had completed PhD qualifications.
  - i. Refer to Attachment A.
  - j. Refer to Attachment B.
  - k. Refer to Attachment C.
2.
    - a. Yes.
    - b. The SmartForm platform used by the department experienced intermittent issues with system performance and access to saved forms for short periods of time prior to the close of applications. To compensate for any time lost, the submission date was extended by 24 hours and application material was also accepted by email. Some applicants underestimated the department's recommended time required to complete the SmartForm.
      - i. Platform issues have been identified and resolved. Applicants in future rounds will be provided with additional advice on application requirements.
      - ii. No.
    - c. Interviews are scheduled for 29 and 30 November 2016.
    - d. A recommendation is expected to be made to the Minister in December 2016.
    - e. The final outcome is expected to be announced in early 2017.
    - f. There is no specific amount allocated to the 18<sup>th</sup> CRC selection round. The amount of funding committed in each round depends on the quality of applications, amount requested by recommended applications, the timing of funding requested and the amount of uncommitted funding available.
      - i. No specific amount has been allocated to the 18th round.
      - ii. No specific amount has been allocated to future rounds.
    - g. No.
  3.
    - a. 62.
    - b. Successful applicants are expected to be announced in early 2017.
    - c. There is no specific amount of funding allocated to the 2<sup>nd</sup> CRC Project selection round. The amount of funding committed in each round depends on the quality of applications, amount requested by supported applications, the timing of funding requested and the amount of uncommitted funding available.
      - i. No specific amount has been allocated to the 2nd round.
      - ii. No specific amount has been allocated to future rounds.
    - d. The number will be determined by the Minister based on answer 3c.
      - i. The number of applications funded under the 2nd round has not been determined and cannot be compared.
      - ii. The number of applications funded under the 2nd round has not been determined and cannot be compared.
  4.
    - a. The timeline was recommended by the department and agreed by the former Minister to meet stakeholder needs.
    - b. There is no impact on the expected timing of announcements.
  5. All current CRCs, have been reviewed by the CRC Advisory Committee, except the CRC for Optimising Resource Extraction and Innovative Manufacturing CRC which only commenced operation in October 2015. The department supported these reviews.
  6. a – d. CRCs are monitored on an ongoing basis, and reviewed as required, by the CRC Advisory Committee on advice and with the administrative support of the department.
  7. Several CRCs have had essential participants withdraw since July 2015. The department is not aware of any imminent withdrawals.

- a. Monash University and Murray Goulburn Cooperative Ltd withdrew from the Oral Health CRC as essential participants. Novo Deko withdrew from the CRC for Low Carbon Living as an essential participant.
  - b. The reasons for essential participants withdrawing from CRCs are varied and can include the completion of the project they are involved in, changes to the participant's financial situation and a change in the participant's research focus. CRCs are required to ensure they are still appropriately resourced which is usually achieved through the addition of new participants. In the cases above, the CRCs have assured the department that the overall outcomes of the CRC will not be impacted.
8. The Invasive Animals CRC; Poultry CRC; Automotive Australia 2020 CRC; CRC for Polymers; and CRC for Remote Economic Participation.
- a. All CRCs are required to develop and submit transition, wind up and exit plans to the department. CRCs may develop additional plans and strategies to suit their circumstances.
  - b. The department provides feedback on transition, wind up and exit plans. Activities beyond the funding term are a matter for the CRC and its participants.
  - c. The department's focus is on compliance with, and delivery against the requirements, of the funding agreement. CRCs are encouraged to identify a range of options, should they choose to continue activities beyond the funding term. The department has no concerns with plans submitted by CRCs, but as noted above future plans are a matter for the CRC and their participants to determine.
9. The 11<sup>th</sup> CRC selection round in 2008.
- a. Yes. Changes have been made to the Impact Tool – previously known as the Economic Impact Projection Template – to improve its efficiency and usability. These include simplification of the probabilities and risks sections, the inclusion of additional activity level information, enhanced macros to enable the addition and removal of elements of the tool and enhancements to the supporting guidance.
  - b. i. – ii. No. The Impact Tool informs the funding agreement. Performance against the funding agreement is monitored and reviewed on an ongoing basis by the department.

**Australian universities formally participating in current CRCs**

- Australian National University
- Central Queensland University
- Charles Darwin University
- Charles Sturt University
- Curtin University
- Deakin University
- Edith Cowan University
- Griffith University
- James Cook University
- La Trobe University
- Macquarie University
- Monash University
- Murdoch University
- Queensland University of Technology
- Royal Melbourne Institute of Technology
- Southern Cross University
- Swinburne University of Technology
- The Flinders University of South Australia
- The University of Adelaide
- The University of New England
- The University of Queensland
- The University of Wollongong
- Federation University Australia
- University of Canberra
- University of Melbourne
- University of New England
- University of New South Wales
- University of South Australia
- University of Southern Queensland
- University of Sydney
- University of Tasmania
- University of Technology Sydney
- University of Western Sydney
- Victoria University

**Australian industry participants formally participating in current CRCs**

- 43 Version 2 Pty Ltd
- Advanced Composite Structures Australia Pty Ltd
- Advanced Dynamics
- AECOM Australia Pty Ltd
- AEIOU Foundation
- Agilent Technologies Australia Pty Ltd
- Allflex Australia Pty Ltd
- Alltech Biotechnology Pty Limited
- Alpha Autism Inc
- Alzhyme Pty Ltd
- AMIRA INTERNATIONAL LIMITED
- Anatomics Pty Ltd
- Anglo American Exploration (Australia) Pty Limited
- Anglo American plc
- Animal Control Technologies (Australia)
- ASC Pty Ltd
- Ash Development Association
- Asperger Services Australia
- Attune Hearing Pty Ltd
- Aurecon Australia Pty Ltd
- Australasian Slag Association
- Australian Council for Educational Research
- Australian Council for Educational Research Ltd
- Australian Egg Corporation Ltd
- Australian Electric Vehicle Company Pty Ltd
- Australian Health Service Alliance Limited
- Australian Institute of Petroleum Ltd
- Australian Meat Processor Corporation Ltd
- Australian Pig Science Association
- Australian Pipelines and Gas Association
- Australian Pork Farms Group Ltd
- Australian Pork Limited
- Australian Window Association Incorporated
- Australian Wool Innovation Ltd
- Australian Wool Testing Authority Ltd
- Autism Association of South Australia Inc
- Autism Association of Western Australia Inc
- Autism Awareness
- Autism Queensland Inc
- Autism Specific Early Learning and Care Centre - AEIOU Foundation Ltd
- Autism Specific Early Learning and Care Centre - Anglicare SA Incorporated
- Autism Specific Early Learning and Care Centre - Burnie City Council
- Autism Specific Early Learning and Care Centre - KU Children's Services
- Autism Specific Early Learning and Care Centre - La Trobe University
- Autism Specific Early Learning and Care Centre - WA
- Autism Spectrum Australia (Aspect)
- Aviagen Australia Pty Ltd

- BAE Systems Australia Pty Ltd
- Baiada Poultry Pty Ltd
- Barrick Gold Australia
- BCI Media Group Pty Ltd
- Bear Rock Solutions Pty Ltd
- BHP Billiton Innovation Pty Ltd
- BHP Billiton Iron Ore Pty. Ltd
- BHP Billiton Olympic Dam Corporation Pty Ltd
- Bionomics Ltd
- Bioplatforms Australia Limited
- Bioproperties Pty Ltd
- Blue Care
- BlueScope Steel Limited
- Boart Longyear Limited
- Bombardier Transportation Australia Pty Ltd
- Brain Resource Limited
- Brookfield Multiplex Constructions Pty Ltd
- BT Financial Group
- BuildingSMART Australasia Incorporated
- BUPA Foundation (Australia) Ltd
- Capital Markets Consulting Pty Limited
- CAP-XX (Australia) Pty Ltd
- Catholic Education Commission of Victoria Ltd
- Catholic Education Office of WA
- Cell Therapies Pty Ltd
- Central Australian Aboriginal Congress Inc
- Centre for Appropriate Technology
- Centrefarm
- CH2M Hill Australia Pty Ltd
- ChargePoint Pty Ltd
- Chevron Australia Pty Ltd
- Chi-X Australia
- CHM Alliance Pty Ltd
- Chris Richards and Associates Pty Ltd
- Clareo
- Clinical Genomics Pty Ltd
- Cochlear Ltd
- Cogstate Ltd
- COLES SUPERMARKETS AUSTRALIA PTY LTD
- Comet Strategy
- Constraint Technologies International Pty Ltd
- Consult Australia
- Co-operative Bulk Handling Limited
- Core Resources
- Corporation of the Trustees of the Roman Catholic Archdiocese of Brisbane - Catholic Education
- Cousins Merino Services
- CSL Limited
- CSR Ltd
- Cytomatrix Pty Ltd

- Danila Dilba Biluru Butji Binnilutlum Health Service Aboriginal Corporation formerly Danila Dilba Medical Service
- desArt
- Desert Garden Produce Aboriginal Corporation
- DLG Energy Pty Ltd
- Doug Hall Enterprises Pty Ltd
- Downer EDI Rail Pty Ltd
- Edansafe Pty Ltd
- Ego Pharmaceuticals Proprietary Limited
- Elanco Animal Health Pty Ltd
- Electrolight Pty Ltd Australia Pty Ltd
- Energex Limited
- EOS Space Systems Pty Limited
- ERGON Energy Corporation Limited
- Exylika Pty Ltd
- Faiveley Transport Australia
- Feedworks Pty Ltd
- Fibrecell Australia Pty Ltd
- Financial Services Council Limited
- Flight Data Systems Pty Ltd
- Fresh Fields Aged Care Pty Ltd
- Futuris Automotive Interiors (Australia) Pty Ltd
- Gallagher Australia Pty Ltd
- Gallipoli Medical Research Foundation
- GC Australasia Dental Pty Ltd
- Gekko Systems Pty Ltd
- Genix Ventures Pty Ltd
- GHD Pty Ltd
- Glencore Queensland Limited
- GM Holden Ltd and GM Global Technology Operations Inc
- Go Pivotal Pty Ltd
- Golden Cockerel Pty Ltd
- GrainCorp Operations Ltd
- Grains Research & Development Corporation
- Grey Innovation Pty Ltd
- HAMBS Systems Limited
- Hanor
- Hassell Pty Ltd
- Hatch Associates Pty Ltd
- Hazeldene's Chicken Farm Pty Ltd
- Hear and Learn Pty Ltd
- HEIQ Pty Ltd
- Horticulture Australia Ltd
- Housing Industry Association Limited
- Hybrid Electronics Australia Pty Ltd
- Hy-Line Australia Pty Ltd
- Icon Agriculture
- Iga Warta
- iiNet Ltd
- Imdex Ltd
- Inghams Enterprises Pty. Ltd.

- Integrated Packaging
- Jalun Pty Ltd & Marzco Pty Ltd
- JBS
- JKTech Pty Ltd
- Jumbo Vision International Pty Ltd
- Kungka's Can Cook
- Leidos Pty Ltd
- Lhere Artepe Aboriginal Corporation
- Lucsan Capital Pty Ltd
- Magotteaux Australia Pty Ltd
- Master Builders Australia Ltd
- Mater Medical Research Institute
- MBD Energy
- MBD Energy
- Meat & Livestock Australia Limited
- Medvet Science Pty Ltd
- Melbourne Water Corporation
- Mesoblast Limited
- METS Ignited Australia Limited
- Mike Stephens & Associates Pty Ltd
- Minds and Hearts
- Minerals Council of Australia
- MineSense Technologies Ltd
- Mipac Pty Ltd
- Mondo Visione Ltd
- Neuromonics Pty Ltd
- Neurosensory Pty Ltd
- New Zealand Pork Industry Board
- Newcrest Technology Pty Ltd
- Newmont Australia Ltd
- NextCell Pty Ltd
- Northern Territory Cattleman's Association
- NPLEX Pty Ltd
- Observant Pty Ltd
- Olympus Australia Pty Ltd
- OneSteel Manufacturing Pty Ltd
- Optalert Australia Pty Ltd
- Optiver Pty Limited
- Orica International Pty Ltd
- Orient Capital
- Palantir Technologies Australia Pty Ltd
- Paradyn Systems Pty Ltd
- Pepe's Ducks Pty Ltd
- Pfizer Australia Pty Ltd
- Pfizer Australia Pty Ltd
- Porkscan Pty Ltd
- Practical Systems Limited
- Precision Pastoral Pty Ltd
- PrefabAUS Ltd
- PricewaterhouseCoopers
- QG

- Queensland Urban Utilities
- Red Lea Chickens Pty Ltd
- Redarc Technologies Pty Ltd
- Remote Biz Pty Ltd
- Renae Beaumont Enterprises Pty Ltd
- Respironics Inc, A Phillips Healthcare Company
- Rice Research Australia Pty Ltd
- Ridley AgriProducts Pty Ltd
- Rio Tinto Services Limited
- Rivalea (Australia) Pty Ltd
- Robins Foods Pty Ltd
- Rode Microphones
- RP Data Limited
- RSPCA Australia Incorporated
- Rural Industries Research & Development Corporation
- Russell Mineral Equipment
- SA Group Enterprises Inc
- SA Pathology
- Sapien Technology Pty Ltd
- SAS Institute Australia Pty Ltd
- Scantech Limited
- Securities and Futures Commission of Hong Kong
- Sedgman Limited
- Seeing Machines Ltd
- Semantic Sciences Pty Ltd
- SGS Economics and Planning Pty Ltd
- Sheepmeat Council of Australia
- Siemens Hearing Instruments Pty Ltd
- Sigma Air Conditioning Pty Ltd
- Simplex Factory Automation Pty Ltd
- Singapore Exchange Limited
- SLM Solutions GmBH
- Smith and Nephew
- SMR Automotive Australia Pty Limited
- Sodern
- Soil and Groundwater Pty Ltd
- South Australian Water Corporation (Australian Water Quality Centre)
- South East Queensland Hyperbaric Pty Ltd
- South East Water Ltd
- SRK Consulting
- Standards Australia Ltd
- Stryker Australia Pty Ltd
- Summit Mining International
- Sunny Brand Chickens Pty Ltd
- SYNthesis Research Ltd
- Technological Resources Pty Ltd
- Teck Resources Limited
- Teradata Australia Pty Ltd
- Terumo BCT
- The Aspergers Syndrome Clinic
- The Association of Independent Schools of QLD Inc

- The Boston Consulting Group
- The Graham (Polly) Farmer Foundation
- The Northern Australian Pastoral Company
- The Royal Australian Institute of Architects
- Thomas Foods International
- Toyota
- Turi Foods Pty Ltd
- Unisys Australia Pty Ltd
- Vale Exploration Pty Ltd
- VCAMM Limited
- Virbac (Australia) Pty Ltd
- Viterra Ltd
- VPAC Innovations Pty Ltd
- WA Agricultural Produce Commission Pork Producers Committee
- Western Australian Meat Marketing Coop.
- Whittle Consulting Pty Ltd
- WoodHead Pty Ltd
- Woolworths Ltd
- WorleyParsons

**International partners formally participating in current CRCs**

- Vrije Universiteit Brussel
- GEOIDE (inc), Canada
- Memorial University of Newfoundland (MUN)
- University of British Columbia
- Concordia University, representing Smart Net-zero Energy Buildings Strategic Research Network (Canada)
- National Research Council of Canada
- Wuhan University, China
- Tongji University (China)
- CRRC Corporation Limited (China CNR Corporation Ltd)
- Chinese Academy of Meteorological Science (CAMS)
- First Institute of Oceanography (FIO)
- Carometec A/S
- Laboratoire d'Etudes en Géophysique et Océanographie Spatiales (LEGOS)
- BASF SE
- Alfred Wegner Institute for Polar and Marine Research
- HLM Asia Group Limited (formerly HLM Asia Capital Ltd)
- Fondazione European Capital Markets CRC
- The National Institute of Information and Communications Technology (NICT)
- Institute of Low Temperature Science (ILTS), Hokkaido University
- National Institute of Polar Research (NIPR)
- Tokyo University of Marine Science and Technology
- Malaysian Automotive Institute
- Delft University of Technology
- Nutreco Nederland BV
- AssistiveWare
- Lighting Sciences Group Corporation
- Land Information New Zealand
- University of Canterbury
- NZ Plant Research Ltd
- Bio-Protection Research Centre NZ
- Plant and Food Research (NZ)
- Connovation Ltd
- Landcare Research New Zealand Limited
- New Zealand Dept of Conservation
- National Institute of Water and Atmospheric Research
- Cadbury Enterprises Pte Ltd
- Biomin Singapore Pty Ltd
- SingTel Optus Pty Ltd
- University of the Free State
- NASDAQ OMX Sweden
- F. Hoffmann-La Roche Ltd
- SAMMITR Motor Group/Sammitr Australia R&D Pty Ltd
- CABI
- UK Food and Environment Research Agency
- International Council of Mining and Metals
- Financial Conduct Authority

- Centre for Polar Observation and Modelling (CPOM), UK
- Open Geospatial Consortium Inc
- The Ohio State University, USA
- EthicalChem
- Pfizer Inc
- Kansas State University
- Pennsylvania State University
- Affymetrix Inc
- Joseph Piven
- Athersys
- Basis Technology Corporation
- Lockheed Martin Space Systems Company, Advanced Technology Centre
- NASDAQ OMX New York
- Old Dominion University (ODU), USA
- University of Texas at Austin
- University of Texas at San Antonio (UTSA), USA
- Colorado State University
- Northwestern University (Kellogg School of Management)