

**Economics Legislation Committee**  
**ANSWERS TO QUESTIONS ON NOTICE**  
Industry, Innovation, Science, Research and Tertiary Education Portfolio  
Additional Estimates Hearing 2012-13  
13 February 2013

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**AGENCY/DEPARTMENT:** DEPARTMENT OF INDUSTRY, INNOVATION, SCIENCE, RESEARCH AND TERTIARY EDUCATION

**TOPIC:** DIISRTE – Budget commitment to the Chief Scientist’s *Mathematics, Engineering & Science in the National Interest* report

**REFERENCE:** Written Question – Senator Mason

**QUESTION No.:** AI-74

In May 2012, the government, in its Budget announcement, committed to provide \$54 million as part of its response to the Chief Scientist’s *Mathematics, Engineering & Science in the National Interest* report (**Report**): see Chris Evans and Peter Garrett, ‘Budget 2012-13 – Investing in Science and Maths for a Smarter Future’, Joint Media Release, 8 May 2012.

- a)
- i. What programs will be supported by the “\$10.9 million to improve the quality of teacher training through innovative delivery of maths and science teaching programs for prospective teachers”?
  - ii. Which of the Report’s recommendations does this expenditure relate to?
- b)
- i. Is the “\$3.0 million for national support and advice for teachers”, which includes, among other things, “funding for a national advisory and linking service” to be used to establish the National Centre for Mathematics and Science Teachers proposed in recommendations 7-8 and Appendix C of the Chief Scientist’s report?
  - ii. What steps have been taken to establish the National Centre for Mathematics and Science Teachers to date?
  - iii. What steps have been taken to train regionally-based facilitators linked to the National Centre for Mathematics and Science Teachers (as mentioned in recommendation 11 of the Report)?
- c) In the Budget announcement, the government committed \$5 million to the Science Connections program and \$6.5 million to the Science Partnerships program. Will funding be provided for the other two components of the Collaborations in Schools program recommended by the Chief Scientist, namely (a) Science Innovation and (b) Science Practice/the Advancing Science Education by Learning in the Laboratory (**ASELL**) program (Report, page 9, Appendix D and Appendix E)?
- d) With respect to the ASELL program, the “\$3.0 million for national support and advice for teachers” committed by the government in its Budget announcement includes support for “practical activities for school science laboratories”. This funding is not sufficient to support both the National Centre for Mathematics and Science Teachers and the ASELL program because the Chief Scientist recommends funding of \$3 million solely for the ASELL program (Report, page 9, Appendix D and Appendix E). Will further funding need to be committed to implement the Chief Scientist’s recommendations?

- e) Which of the Report's recommendations does the "Australian Mathematics and Science Partnerships Program" (attracting a \$22.5 million investment from the government, as announced on 30 December 2012) purport to implement?

## ANSWER

- a)
- i. The funds will support a new program, Enhancing the Training of Mathematics and Science Teachers. The program aims to drive a major improvement in the quality of mathematics and science school teachers by supporting new pre-service courses in which faculties of science, mathematics and education collaborate on course design and delivery, combining content and pedagogy so that mathematics and science are taught as dynamic, forward-looking, and collaborative human endeavours.
  - ii. Recommendation 3.
- b)
- i. The \$3 million for national support and advice for teachers aims to strengthen existing national advisory services for science and mathematics teachers, develop advice on best practice practical activities that can be delivered in schools, and develop online national support and advice for teachers. There are no plans to establish a National Centre for Mathematics and Science Teachers.
  - ii. Please refer to response b)i.
  - iii. Please refer to response b)i.
- c) Funding has not been provided in the Mathematics and Science Package for Science Innovation – Science and Technology Education Levering Relevance and Science Practice – Advancing Science Education by Learning in the Laboratory. As part of the \$3 million for projects supporting national support and advice for teachers, the Australian Science Teachers' Association (ASTA) will develop a range of educationally sound and safety-compliant practical activities for school science laboratories to improve science learning and engagement. In undertaking this work ASTA will collaborate with other interested parties such as the Australian Council of Deans of Science.
- d) Funding has not been specifically allocated for the ASELL program or the National Centre for Mathematics and Science Teachers as set out above.
- e) The AMSPP's objective, priorities, and assessment criteria are designed to generate projects which address the following specific recommendations of the Chief Scientist's Report:
- **RECOMMENDATION 6:** The Commonwealth Government encourage more focused and better quality professional development for MES teachers and act as appropriate to ensure equitable access to relevant opportunities for teachers anywhere in Australia.
  - **RECOMMENDATION 12:** Urge universities to send accurate signals about the value of mathematics, engineering and science to schools, students, teachers and careers advisors.
  - **RECOMMENDATION 14:** Continued support for school leadership and the further development of their skills should remain a priority.
  - **RECOMMENDATION 17:** Expand effective programs for encouraging more women into mathematics, engineering and science.