

EDUCATION, SCIENCE AND TRAINING

SENATE LEGISLATION COMMITTEE – QUESTIONS ON NOTICE 2003-2004 ADDITIONAL ESTIMATES HEARING

Outcome: CSIRO
Output Group: - CSIRO

DEST Question No. E966_04

Senator Carr provided in writing

Question:

This report summarises the destruction of a major research facility.

Can you provide me with the science research case, as well as the cost benefit analysis, for:

- Running down the Radiogenic Isotope Facility, which supports a range of CSIRO divisions, with three staff made redundant,
- Closing the Stable Isotope Facility, with the loss of two jobs, and transferring the equipment to a private company set up by two CSIRO staff members,
- Closure of the heavy Ion Analytical facility, with the loss of at least two positions, and the hope that financial support will be found in the long run from the Victorian Government and others to relocate some of its functions to CSIRO facilities at Monash,
- One redundancy at the X-Ray diffraction Laboratory, and another at ICP-OES, with both facilities transferred elsewhere in CSIRO,
- The contracting back at greater cost of senior staff essential to the success of the GETMAG and MAGSAFE projects and the transfer of the paleomagnetic laboratory to Macquarie university,
- The dumping of the radiometric laboratory and its manager, with the likelihood that these services will be contracted out in the future, and
- A significant reduction in sea floor research undertaken by E&M.

Answer:

CSIRO has provided the following response.

Exploration and Mining

There has been no destruction of a major research facility. CSIRO Exploration and Mining (CEM) sought industry input on its relevance and performance, and took appropriate action. These actions took into account the cyclical nature of exploration, the fact that the exploration cycle was in a low, that exploration activity had fallen 50% since 1997, and that industry R&D falls disproportionately in such cyclical downturns.

In making decisions about which areas to expand, which to continue, and which to close, CSIRO management used the following criteria:

- Alignment with organisational and divisional strategic focus
- Focused to maximise chance of success
- Timely delivery and uptake mechanisms
- Expected benefits upon successful completion
- Reasonable expectation of success
- Track record of the research team.

In spite of CSIRO's track record for delivering outstanding geological science to the mineral industry, the needs of 2006 and beyond will not be the same as those of the 1990s. CSIRO needs to maintain alignment with key stakeholders, remain financially viable, and ensure CEM's ability to deliver high quality and relevant science.

Important external drivers for change include:

- With the move to globalisation of medium to large mining companies, maintaining and growing Australia's share of global exploration expenditure is increasingly important.
- Companies remain critical stakeholders of CSIRO and must be engaged more effectively to foster exploration success in Australia. In particular, many small to medium explorers are committed to Australian exploration and there is an urgent need to support this market with effective R&D. One tenth of world exploration is in Western Australia: given the low sovereign risk and high exploration success over the last two decades, WA will remain an important destination for exploration.
- There has been a significant shift in industry investment towards near-mine exploration. For regional exploration, there is an increasing need to find effective and innovative ways to explore under cover.
- In spite of notable successes, there is feedback from industry through AMIRA and through the Mineral Resources Sector Advisory Council that some of our exploration science is becoming less relevant and that we need to improve our delivery to meet expectations. For example, at the 2001 Biennial AMIRA Exploration Managers meeting in South Australia, AMIRA International stated that CEM had problems delivering upon its research. Discussions with specific companies confirmed this opinion. The statements were made in front of representatives covering more than 60% of the world's exploration activity, and none chose to dispute the comment.

In specific response to your queries, a conventional cost-benefit analysis is not appropriate for all these areas of R&D because the benefit is made up of a value if the research is completely successful, and a factor that estimates the likelihood of success. The likelihood of success is judged on the technical challenges, the quality of the scientists and their team, and their track record of completion and successful delivery.

- CEM is seeking ways to retain the Radiogenic Isotope facilities. The radiometric laboratory and its manager have not been 'dumped'. CSIRO works at all times with potentially redundant staff to explore redeployment possibilities prior to redundancy.
- The Stable Isotope facility did not rank as highly as other research areas that were retained and is available elsewhere on a commercial basis. The Facility was transferred to a private company managed by one of the original CSIRO staff members. This is an example of Divisions working with staff and other institutions to achieve a better outcome for all.

- The Heavy Ion Analytical Facility was wound down on commercial and feasibility-of-success reasons after a review in 2002, and the remaining part moved to Melbourne University in 2004 to capture benefits from the new National Synchrotron Facility.
- Neither the X-ray Diffraction or ICP-OES facilities represented the world's leading capability, they are generic technologies and neither ranked favourably against those areas retained.
- GETMAG and the palaeomagnetic laboratory were both ranked below those activities that were retained.
- MAGSAFE – The MAGSAFE project is managed by CSIRO Telecommunications and Industrial Physics (CTIP) and will continue (see also answer to E953_04).
- The seafloor research had been reduced following the retirement of its founder and leader, Dr Ray Binns, in 2002. The focus in future will be on how to use the seafloor information to find ore bodies on land, rather than to understand the seafloor, per se. This shift of emphasis is compatible with industry opportunities on land, and is designed to build on the earlier seafloor work.