TASMANIAN GOVERNMENT
DEPARTMENT OF ECONOMIC DEVELOPMENT

RESPONSE TO THE PRODUCTIVITY COMMISSION DRAFT RESEARCH REPORT ON PUBLIC SUPPORT FOR SCIENCE AND INNOVATION

DECEMBER 2006

The Tasmanian Department of Economic Development (the department) would like to thank the Productivity Commission for the opportunity to provide comment on the draft research report on Public Support for Science and Innovation. This response has been prepared with advice from the Tasmanian Innovations Advisory Board and the Australian Innovation Research Centre.

The department commend the Australian Government on the terms of reference of the study which provided for a broad scope of discussion on science and innovation matters which are very pertinent to Australia at this point in time.

The draft report provides a number of steps forward in terms of current thinking on science and innovation. The innovation systems framework sets the scene for discussion on the important and complex interactions between institutions in the innovation system.

The report employs serious use of econometric and time series data and provides a comprehensive coverage of research and development (R&D) aspects of innovation.

Another positive aspect of the draft report is its scepticism of narrow definitions and expectations regarding public sector commercialisation. Broad definitions of commercialisation encompass sharing ideas, combining different forms of knowledge and knowledge transfer as well as generating intellectual property rights and spin-off companies.

Linked to this, the conclusion that the guidelines for Cooperative Research Centres (CRCs) have become too focused on narrow commercialisation outcomes is a positive finding. A narrow CRC commercialisation emphasis has the potential to negatively affect industries, particularly low technology and service based industries, in which research is unlikely to lead to IP licensing or spin-offs but might involve transformation of business processes.

In addition, the draft finding in relation to the research quality framework (RFQ) is endorsed. While it is important that there be public accountability for the funding of research, the department feels that the RFQ may detrimentally impact on smaller and regional research organisations which are little able to afford the high salaries required to maintain sufficient critical mass of star researchers.

Further, the department feels that the RFQ may have adverse consequences on the long term sustainability of institutions. It would appear that the RFQ might encourage institutions to sacrifice a number of less senior staff positions for a few high calibre researchers.

There are, however, a number of key areas in which the report does not meet expectations.

The draft report focused almost entirely on public R&D and science. However, given that recent ABS data has indicated that 65% of innovation expenditures in Australia are non-R&D related, and further that 71% of innovating firms do no R&D, this approach would seem flawed. Indeed, it would seem that the Productivity Commission has concentrated its efforts in the area where the most available data lies rather than seeking to improve the data available on non-R&D innovation.

A more appropriate approach might be for the analysis to cover all elements of the innovation system including the various Australian institutions and industry and the effectiveness of interactions between them and other innovation systems.

Further, the dependence on traditional economic models as a basis for discussion in relation to public support for science and innovation would appear to be flawed and dated. The draft report needs to go further than discussing public support in terms of market failure associated with externalities, spillovers and public goods. Instead, science and innovation policy needs to be evaluated through models which take into account the complexity of the innovation system.

Using traditional models of competitive forces, the draft report asserts that non-R&D innovation does not require public support because of competitive forces driving business innovation. Factors including the difficulties faced by small to medium sized enterprises (SMEs) in accessing finance, information failures, and program reviews showing net economic benefit are not considered in the draft report, yet would be expected to demonstrate that there is a strong case for public support of non-R&D innovation. It is suggested that there is a need for ongoing data collection in relation to non-R&D innovation to assist in developing understanding of its impact on the economy and the innovation system.

In regard to SMEs, the report suggests that most SMEs are not technology intensive and as such may not depend on links with research organisations. However, this is not consistent with a broader view on commercialisation. The use of existing technology and knowledge to improve products and processes is fundamental to innovation in a significant proportion of Australian businesses. As such there would appear to be a strong role for government intervention to assist Australian SMEs adopt knowledge and technology.

The draft report indicated that once adjusted for research intensities and industry structure, Australia's BERD was just below the OECD average. Given the importance of a strong science sector and high private R&D for economic competitiveness this appears to reflect a worrying complacency. It would appear important to respond to the relatively low levels of R&D expenditure amongst Australia business and to acknowledge that the structure of Australia's industry is not necessarily conducive to long term economic competitiveness. Analysis of innovation in traditional industry sectors and in the services sector, which constitute a large proportion of Australia's economic activity would also appear to be a necessary approach.

A final comment relates to the draft report comments in regard to the Commercial Ready Program. While staff have not been integrally involved in the delivery of the program, feedback from Tasmanian businesses has reflected the importance of the program and the significant role commercialisation funds can play for SMEs when embarking on potentially risky endeavours. The program is well supported in Tasmania and complements existing programs. It would seem inappropriate to alter the focus of the program after only two years of implementation.