



PRIME MINISTER

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ASTECC STATEMENT

In making this statement, I should, at the outset, remind Honourable Members that an advisory committee on Science and Technology was set up in 1972 when I was the Minister responsible for Education and Science.

This action was taken by the Coalition Government in the light of experience and developments overseas. It followed discussions with leading industrialists, the Australian Academy of Science and senior Government scientists.

The Committee was disbanded by the Labor Government in February 1973 and was not replaced until mid-1975, when an interim Australian Science and Technology Council was set up, pending the passage of legislation.

On 9 February 1976, a small group of distinguished scientists and industrialists was formed to advise me on the role of a permanent Science and Technology Council. The Report from this group was presented in April 1976. After consideration of the Report I announced that the interim ASTEC would be given the primary task of reporting on arrangements for a permanent Science and Technology Council.

After consulting widely and considering the issues in detail, the interim ASTEC produced a report entitled "Future Arrangements for an Australian Science and Technology Council". The Government accepted this report, and I announced the formation of the permanent ASTEC in Parliament on 19 April 1977. I also announced then that ASTEC would be a statutory body. The legislation to establish it was passed by the Parliament last year.

During its period of operation the interim ASTEC provided valuable advice to the Government on a wide range of matters, including: Australia's participation in the first world-wide series of experiments of a major international research programme known as the global atmospheric research programme: Whether Australia should install facilities to receive and process information from Landsat, the USA's earth resources satellite: Arrangements for surveys of our biological resources, particularly our unique and extensive flora and fauna.

With regard to the global atmospheric research programme, the Government accepted interim ASTEC's advice that funds be provided for Australia's participation in an international programme to improve knowledge and understanding of the global circulation system.

On the Landsat programme, the Government's decision to establish receiving and data processing facilities in Australia at an estimated cost of \$4.2 million was in line with interim ASTEC's advice. Following ASTEC's advice on biological resources the Minister for Science announced on 20 August 1978 that the Government had approved long-term arrangements for recording Australia's flora and fauna. These included a new Advisory Committee for the Australian Biological resources study.

Since the permanent ASTEC was established, its substantial commitment has been the preparation of the report "Science and Technology in Australia 1977-78", on which I will have more to say shortly.

As well as this major task, however, ASTEC has also been occupied in providing advice to the Government on a wide range of matters. Some of the more important include: The Report of the Independent Inquiry into the CSIRO.

ASTEC's comments on this major report assisted the Government to decide on the Report's recommendations, and on the future form and role of CSIRO. I tabled these comments in this House on 11 May 1978.

ASTEC has also, at the Government's request, reported on energy research and development in Australia. I presented this report to Parliament on 4 April 1978.

ASTEC's advice, in conjunction with that provided by the National Energy Advisory Committee, was instrumental in the establishment of the National Energy Research Development and Demonstration Council.

In May 1978, the Government asked ASTEC to report on the role and level of activity, of the Bureau of Mineral Resources. ASTEC's report, containing detailed recommendations on how BMR's resources should be deployed to best meet national goals, was tabled on 21 November 1978. ASTEC's recommendations on BMR are to be considered by the Government shortly.

In June 1978, the Government requested ASTEC to report on the direct funding of basic research. The Government is examining this report as a matter of urgency, and for the information of Honourable Members, I present that report. Other activities undertaken by ASTEC are described in the Council's first Annual Report covering the period from its formation to 30 June 1978. I also present the Annual Report today for Honourable Members' information.

I turn now to ASTEC's report on "Science and Technology in Australia, 1977-78". The Council has prepared its report in two volumes. Volume 1 contains the Council's views and recommendations. Volume 2 comprises a series of chapters, each describing the present situation in a particular area of activity.

Because of the many and complex issues involved, this task has been a demanding one and has taken some time to complete. For this reason, Volume 1 was produced in two parts. Volume 1A was tabled on 26 September 1978. It contains ASTEC's views and recommendations on the organisation of Science and Technology in Australia and on the specific areas of fundamental research, industrial research and development, the marine sciences and technologies and health. Volume 1B contains ASTEC's views and recommendations on agriculture and forestry, mineral resources, manufacturing industry, services and environment. For the information of Honourable Members, I present Volume 1B and Volume 2.

The Government, for its part, has now completed its consideration of the recommendations of Volume 1A. I take this opportunity to announce the Government's decisions with respect to those recommendations.

Volume 1A of the ASTEC Report is a valuable survey, which has assisted the Government in its consideration of Science and Technology programmes. In this Volume, ASTEC has identified four main areas of concern in Australian science and technology: industrial research and development; marine sciences and technologies; fundamental research; and, health.

One of the economic consequences of the increased inflation of the 1972-75 period was a serious downturn in manufacturing industry in Australia. This resulted in a reduced level of research and development being carried out in industry.

ASTEC's examination of industrial research and development concluded that increased Government incentives for industrial research and development were warranted. The Council placed such importance on this matter that the Chairman, Professor G. M. Badger, wrote to me prior to the last Budget requesting that the Government give urgent consideration to the Council's recommendation that the level of Government support for industrial research and development be increased.

The Government took action in the Budget in accord with the broad thrust of this request. A joint announcement by the Ministers for Industry and Commerce and Productivity, following last year's Budget gave details of increases in funding for industrial research and development. The extra funds are available under the Industrial and Development Incentives Act 1976 and amendments were introduced during the last sittings of Parliament to improve the Act's effectiveness.

In 1978-79, an estimated \$24 million has been provided for industrial research and development. Compared with expenditure of \$13.7 million in 1977-78, this is an increase of 73 per cent. The increased allocation is financing an expanded programme of commencement and project grants under the Industrial Research and Development Incentives Scheme.

As well, it is supporting major industrial research and development projects, which are in the public interest, with potential national and international application. The Government is also aiding the implementation of a number of pilot programmes in the areas of technology transfer and the commercial exploitation of Australian inventions.

Manufacturing industry, the mining industry, and the rural industries generate much of Australia's wealth. The productivity of these industries is critical to our prosperity and improvements in technology by innovation and by technology transfer are of great importance to our domestic and international competitiveness, and the level of employment.

In this regard, I would draw the Honourable Members' attention to the Crawford Report's broad endorsement of ASTEC's views on the importance of stimulating innovation in Australian industry. I am sure that the House is aware that the Australian invention, Interscan, has been accepted as the international aircraft landing system of the future. This great development confirms that Australia is carrying out research at the forefront of science and technology and is able to apply that research to practical uses.

However, our economic future will depend also on our success in devising numerous innovations perhaps of a less dramatic nature, but in the aggregate of undoubted importance.

Our success with large-scale mining operations in remote regions, for example, has only been possible following development of our railway systems to a stage where as a result of technological advances in the design of rails and bearings, they are able to support the huge trains and heavily-laden trucks which carry minerals from the mines to the coast.

Another important innovation is the development by CSIRO of a "Sirotem", an instrument to detect mineralisation buried under thick overburden. This is an important development for mineral exploration in tropical and arid environments.

Sirotherm, a process for the desalination of water, jointly developed by CSIRO and ICI, is currently being examined by the Department of Productivity with a view to possible funding under the public interest section of the Industrial Research and Development Incentives Scheme.

I particularly draw to Honourable Members' notice three ASTEC proposals aimed at building Australian industry's technological base and stimulating innovation.

The first suggests that governments and agencies should give greater attention to the placement of research and development contracts with industry. The Council believes that "a closer and more fruitful association between industry and Government laboratories must be beneficial, and that the placement of research and development contacts in industry will substantially assist this association".

The Government recognising that this proposal could enable industry to develop and maintain improved research and development capacity is attracted to this concept, and believes that further examination is required. We have requested ASTEC to undertake a more detailed examination of the proposal in consultation with the appropriate Government departments and agencies, so that the cost-effectiveness and longer-term possibilities are analysed in some detail.

The second proposal relates to special measures to encourage technological efficiency and innovation in small companies by the promotion and formation of research associations. This broad policy issue is currently being considered by the Government as a result of its decisions on the CSIRO Inquiry Report. ASTEC's contributions will assist this process.

The third proposal relates to institutional arrangements for encouraging the development of research findings. The Crawford Committee has also recommended that a body to promote innovation be established. The Government is examining the operating experience of research development corporations such as the (UK) National Research Development Corporation, to see whether this mechanism would be suitable to Australian conditions.

ASTEC has also recommended "that greater attention be paid to the marine sciences and technologies in Australia". The Government accepts this recommendation. It recognises the great importance of the marine sciences and technologies in our future well-being.

I remind the House that the Australian Institute of Marine Science was established under a previous Coalition Government when I was Minister responsible for Education and Science.

The importance of marine science in this regard has increased in recent years; particularly in relation to off-shore energy resources and the utilisation and management of resources in our expanded off-shore economic zone.

The Government has accepted ASTEC's suggestion that an Australian Marine Sciences and Technologies Advisory Committee (AMSTAC) be established. The Committee will investigate and report on the co-ordination of research and development and the establishment of priorities in this area.

I am pleased to advise the House that this Committee will be chaired by Professor A. J. Birch, a distinguished scientist whose wide research experience will be invaluable in this important task.

Because of the need to avoid the proliferation of science advisory committees outside the purview of ASTEC, AMSTAC will be established as a standing committee of that Council. It will work closely with relevant Ministers, particularly the Minister for Science and the Environment.

As a general rule, advisory committees such as AMSTAC will be established as standing committees of ASTEC, particularly in areas of science and technology where a number of ministerial portfolios are involved. ASTEC has also recommended an increase in funds for projects of merit and promise in health research and basic research.

In the current year, pending consideration of the ASTEC Report on Basic Research, funding for the Australian Research Grants Committee and the National Health and Medical Research Council, has been maintained at the same levels, in real terms, as in 1977-78.

Other decisions taken by the Government with respect to the Astec Report, relate to the rationalisation of funding procedures particularly in regard to the use of scientific equipment and facilities through greater emphasis on the centralised use of equipment, and the need for co-ordination mechanisms for special requests for new equipment to avoid overlap and duplication.

I take this opportunity to announce details of the membership of the statutory ASTEC. As Honourable Members will be aware, the Australian Science and Technology Act of 1978 received Royal Assent on 22 June 1978 and it was proclaimed on 28 February 1978.

The members of the Statutory Council are: Professor G. M. Badger, A.O., F.A.A., F.T.S., (Chairman) Research Professor of Organic Chemistry, the University of Adelaide; Professor Sir Rutherford Robertson, C.M.G., F.A.A., F.R.S. (Deputy Chairman), Formerly Director, Research School of Biological Sciences, Australian National University; Professor B. D. O. Anderson, F.A.A., Professor of Electrical Engineering, University of Newcastle; Sir Samuel Burston, O.B.E., President,

Australian Woolgrowers' and Graziers' Council; Dr. L. W. Davies A.O., F.T.S., F.A.A., Chief Scientist, Amalgamated Wireless (Australasia) Ltd.; Mr. A. W. Hamer, F.T.S., Deputy Chairman, ICI Australia Limited; Professor B. E. Hobbs, Professor of Geology, Monash University; Dr. P. S. Lang, Member, Commonwealth Council for Rural Research and Extension; Mr. B. T. Loton, Chief General Manager, The Broken Hill Proprietary Company Limited; Professor Sir Gustav Nossal, C.B.E., F.A.A., Director, The Walter and Eliza Hall Institute of Medical Research; Sir Arvi Parvo, F.T.S., Chairman and Managing Director, Western Mining Corporation Ltd.; Mr. L. G. Peres, Reader in Political Science, The University of Melbourne; Mr. K. C. Stone, Secretary, Victorian Trades Hall Council; Professor R. Street, F.A.A., Vice Chancellor, The University of Western Australia; and Mr. J. G. Wilson, C.B.E., Chairman, Australian Paper Manufacturers Limited.

The Government is pleased to have so distinguished a body to provide advice on matters of national importance in the broad areas encompassed by ASTEC's charter.

I should like to commend the work which has been carried out by ASTEC over the last two years, and thank the Members of the Council for their time and effort.

In particular, I should like to thank the retiring member, Sir Louis Matheson, for his important and valuable contributions to the Council's activities. Sir Louis served as Chairman of the interim Council, and when the permanent ASTEC was established, readily agreed to the Government's request that he serve for a further period as a member of the Council.

I should also like to mention the valuable work of the present Chairman, Professor Geoffrey Badger. Professor Badger has held this position since early 1977 and during this period, has ably guided the Council in its deliberations. The Government is most grateful to him for his leadership of this important advisory body, and I am glad to be able to inform the House that he has accepted appointment as Chairman for a term of five years.

Professor Sir Rutherford Robertson has been Deputy Chairman of the Council since its establishment early in 1977. His wise counsel has also greatly contributed to the success of ASTEC, and the Government is very pleased that Sir Rutherford has agreed to continue as Deputy Chairman.

In view of the importance of the primary industry sector in Australia, the Government has thought it best to increase the expertise of the Council in this field. Accordingly, Dr. Patrick Lang has been appointed as the new member. Dr. Lang is a member of the Commonwealth Council for Rural Research and Extension, and also a member of the Universities' Council of the Tertiary Education Commission.

In conclusion I should like to express again the Government's appreciation of the work being done by ASTEC. The role of the Australian Science and Technology Council is a particularly challenging one at this time, and will become more so in the years ahead with the increasing importance of the role of science and technology, and programmes of research and development which will lead to improved productivity and in turn to a stronger international trade, through better products and more efficient techniques.

But research and development can do more. It can be the key to new industries and employment opportunities, create new vistas for society, and improve production in all industrial sectors.

ASTEC will be an important aid to the Government in developing strategies to achieve these goals.
