



PRIME MINISTER

145/92

JOINT STATEMENT BY THE PRIME MINISTER, THE HON P J KEATING, MP AND THE MINISTER ASSISTING THE PRIME MINISTER AND THE MINISTER FOR SCIENCE AND TECHNOLOGY, THE HON ROSS FREE, MP

THE SEVENTH MEETING OF THE PRIME MINISTER'S SCIENCE AND ENGINEERING COUNCIL

The Prime Minister's Science and Engineering Council met today for the seventh time. The Prime Minister chaired the meeting.

Major items discussed by the Council were Science and Technology Opportunities and Strategies in the Asia Pacific Region, Nanotechnology and Microengineering, and Scheduled (Intractable) Waste.

The report, *Science and Technology Opportunities and Strategies in the Asia Pacific Region*, was developed by an independent working group consisting of senior people from industry and higher education bodies actively involved in extending our reach into the region.

Presentations based on the report were made by Professor Stuart Harris, chair of the working group, and two other members of the group, Professor Stephen Hill, Wollongong University, and Mrs Judith King from the Australian Coalition of Services Industries.

The paper found that Australia's science and technology base is a source of comparative advantage in the region, particularly when it is applied to provide practical solutions to Asian problems. In this regard, it noted the importance of the Government's decision to make the R&D tax concession at 150% a permanent feature of Australia's tax regime. The opportunity for Australian exporters are substantial and there have already been some notable successes (eg Australian involvement in power station and mining development in North Thailand).

The report considers that there is a need for governments, academia and business to develop an integrated approach to Australian S&T investment in the region and to enhance Australia's S&T image.

The Government's increased focus on Asia was welcomed and, as some speakers noted, has helped Australian businesses gain access and establish links into Asia.

Nanotechnology was the subject of a presentation by Professor Don Nicklin, Pro-Vice-Chancellor (Physical Sciences and Engineering), University of Queensland.

Professor Nicklin chaired a working party established by the Australian Science and Technology Council (ASTEC) to produce a report on nanotechnology as part of ASTEC's work program. The working party consists of senior researchers from industry, government and higher education institutions engaged in examining the status and potential of this new technology in Australia.

Nanotechnology is concerned with miniaturisation beyond the "micro" level, that is, the fabrication of devices with component sizes less than 100 nanometres (a unit of length measuring one billionth of a metre or a millionth of a millimetre). This is the same order as the diameter of molecules. Nanotechnology is considered to be generic to a wide range of industries: health care, separation technologies, mining and energy storage, as well as communications and optoelectronics.

European countries, Japan, USA and Canada are actively positioning themselves for the commercialisation phase. Japan, for example, has singled out nanotechnology as the focus of its push for world technology leadership in the 21st century. An opportunity exists for Australia to participate in these developments. Australia has expert capacity in government and higher education laboratories to provide a basis for realising nanotechnology's potential importance to our competitiveness in areas such as mining, manufacturing and food processing.

A presentation on microengineering was given by Professor Ian Bates, Associate Dean Research and Development, Faculty of Engineering at the Royal Melbourne Institute of Technology (RMIT) and Dr Ron Zmood, Principal Lecturer, Electrical Engineering, Department of Electrical and Manufacturing Systems, RMIT.

They said that during the next decade micromachines would become as commonplace in consumer products as the micro chip is now. Potential applications include improvements to existing technology in medical, industrial automotive and defence areas. Overseas, Japan, USA and Germany have large R&D programs underway. In Australia, a number of companies, higher education and CSIRO researchers are working on microengineering fields. RMIT is collaborating with Japan. These capabilities can provide the basic resources to support the development of complete micromachines for exploitation by Australian industry.

Professor Ben Selinger, chair of the Independent Panel on Intractable Waste, and Dr Bruce Coniglio from ICI Australia, presented the findings of the recently released study on scheduled (intractable) waste to the Council.

Their focus was on developed and developing technologies for handling such wastes which could open market opportunities for Australia.

CANBERRA

Monday 14 December 1992

Attached:

Current membership of the Prime Minister's Science and Engineering Council

Copies of report on Nanotechnology are available as follows:

- Nanotechnology - ASTEC - 06 273 4966
- Report on *Australian Science and Technology Opportunities and Strategies in the Asia Pacific Region* (available from the Office of the Chief Scientist - 06 271 5462).
- Microengineering - RMIT - 03 660 3260.

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