

LIBRARY

EMBARGOED AGAINST DELIVERY
AT 4.00 P.M.



CHECK AGAINST DELIVERY

PRIME MINISTER

**SPEECH BY THE PRIME MINISTER
OPENING OF THE CSIRO CLAYTON LABORATORY
MELBOURNE - 18 MAY 1984**

I am most grateful for the consideration shown by Dr Wild and members of the CSIRO Executive in deferring the opening of these laboratories to afford me the opportunity of participation today.

I know all connected with the Divisions of Chemical and Wood Technology, and Mathematics and Statistics, will find these new facilities a considerable improvement over those available at the former premises in South Melbourne.

When facilities for other CSIRO Divisions are completed on this site, the entire complex will have the capacity to become a world class centre for technological research. By its very location, providing as it does for close interaction with the adjacent university and with industry, it has a natural advantage.

The work being carried out by the new division of Chemical and Wood Technology is of particular significance. It is a clear demonstration of commercially relevant research. Such research is vital to Australia's future prosperity.

Much of the Chemical and Wood Technology Division's work is carried out in conjunction with Australian industry. Indeed the Division already has a number of industrial developments to its credit. Importantly these achievements include examples of how high technology research can provide for the need for both advanced product and improved process.

Notable recent activities include:

- Development with Repco of a process for converting small diameter logs into structural wood product called "scrimber"
- Successful scale-up of the "Sirofloc" water clarification process with a commercial plant now in operation at Bell Bay, Tasmania.
- Investigation into ways of substituting wood fibre for asbestos in re-inforced cement products.

The new laboratories will enable the Division to pursue even more actively its industrially related research. A feature of the building itself is the large process bays provided for the scaling-up of research from the laboratory stage to pilot - plant operation. This will allow demonstration of many of the new ideas generated by research staff for industry.

The ultimate test of success for most CSIRO research is its likely benefit to the Australian industry and community. Research and Development - R and D - should not be ends in themselves. They must become economically productive either directly or indirectly. They should be linked to a range of other considerations, including quality control and marketing. In this regard I am pleased to see that one of the manufacturing industry research topics to which CSIRO is giving highest priority is that of using advanced technologies for process and quality control. This correctly recognises the fundamental importance of achieving high quality if Australia is to improve its industrial competitiveness.

There can be no doubt that successful industrial application has not been generally characteristic of Australia's broad research effort. While we compare favourably with other countries in terms of basic research - we are in the top eight in OECD - we are well behind in turning these research results into new industrial opportunities.

We are failing to turn R and D into dollars. We are giving too much emphasis to the "R" and too often neglecting the "D" dimension of it all.

Greater effort should therefore be made to capitalise on our indigenous research.

It is important that commercialisation of CSIRO developments be carried out wherever possible by Australian firms, since this not only maximises CSIRO's assistance to Australian industry, but also maximises the return to the community on its investment in CSIRO.

This does not mean, however, that all Australian research should be reserved for exploitation by Australian industry. That would go against the principle of the free exchange of ideas. As a nation which has had the capacity to produce four Nobel Prizewinners - the same number as Japan with eight times our population - we must shoulder our responsibility. But if Australian research is taken up overseas, as it will be in some cases, there should be provision for some of the benefits of commercial exploitation to be returned to Australia by way of joint ventures or royalties.

I would also suggest (and here I am repeating a theme I have taken up elsewhere) that it is vital that support for research be directed deliberately to the best research workers. This should apply as much within CSIRO as elsewhere.

If Australia is to maintain its lead, or indeed survive, in a wide range of national endeavours, whether they be pure science or new technology for industry, then we shall have to identify the best and most forward-looking research workers, and ensure that their excellence and enterprise are properly supported.

Quality and opportunity should be our key criteria for support. To the extent they are, results will flow back to the nation as a whole, in advancement of scientific knowledge, and a vigorous economy based on technologically aware and up-to-date industries.

Obvious as this might seem, the plain fact of the matter is that we as a nation have a long way to go to achieve a vigorous economy based on technologically aware and up-to-date industries - industries working arm in arm with our research establishment. What we need is a situation where our research community and industry meet together, talk together, plan together and work together. This should be a priority objective for all concerned.

In this regard the results of several recent surveys are disturbing. They reveal that many Australian executives are confused about the application of new technology. A high percentage of those interviewed in one survey saw foreign competitors as more technologically advanced and making better use of technology. Notwithstanding this, more than two thirds still professed themselves satisfied with the way research and development was being carried out within their own organisations.

No-one in Australia can take comfort from these findings - whatever inconsistencies there may be between the attitudes expressed.

One factor at work clearly is a complacency born of the inward-looking nature of some areas of our economy. Government willingness in the past to shelter areas of industry, and thus lessening the edge of competition, may have made industry, and top executives in particular, indifferent to new technologies.

Certainly this complacency cannot continue if we are to compete with countries whose industries are making greater efforts than ourselves to utilise new productivity raising technologies.

The adoption of new technologies to revitalise existing industry and promote the development of new industries is crucial to the maintenance and improvement of the living standards of the Australian people. The success with which we do so will also have an important bearing on the extent to which we ultimately get to grips with unacceptably high levels of unemployment.

The Australian Labor Government, with its commitment to consolidating the economic recovery which is now under way, and its interest in establishing a sound basis for Australia's long-term economic development, wants a close nexus to be forged between science and technology and industry development.

This emphasis on practical research and development does not deny in any way the importance of basic research. What the Government seeks is a balance between pure and applied research. As a nation with fewer financial resources than many of our international competitors, it is essential that we make the best use of our scientific resources.

We can accept that, as a small country in terms of population, we cannot match the research and development capacity of overseas establishments in some particular areas of specialisation. In such cases it may be advantageous to monitor their output and purchase the relevant rights. With suitable modification to Australian conditions, it may be profitable to do so.

But there will be cases where, if we focus our attention and exert our will and enterprise, we can lead the world. We should not shrink from doing so. Interscan, in which Dr Wild had such a direct hand, is a clear instance of the possibilities which exist. The Siding Spring Telescope which I had the privilege to open the other day, would be another example.

My more general concern, however, is that development of Australia's capacity in the field of science and technology be seen as an integral part of our efforts to build viable, internationally competitive, Australian industries.

The discussion paper on a national technology strategy recently released by my colleague, Barry Jones, and debated in Parliament only last week, is an important contribution to the process of developing an active and coherent approach to technology issues and their relevance for the growth of Australian industry.

As Sir Gustav Nossal said earlier this week of this draft strategy:

"(It) is important because it identifies both the essential role of science and technology in long-term economic health and the serious quantitative and attitudinal deficiencies in Australia that limit the contribution which our science sector can make".

That paper set out five national priorities as matters for debate:

1. Raising Australia's skill base;
2. Bridging the gap between research and industry;
3. Moving towards high value added goods and services;
4. Creating stronger and more appropriate economic structures which will provide goods which can be placed on a world market; and
5. Overcoming the problems of overspecialised regional economies such as in coal, steel and heavy manufacturing industries.

I think it very important that this statement of priorities be submitted to the closest scrutiny. On the basis of a constructively critical dialogue around the issues involved, the development of a relevant, well-co-ordinated policy approach in this important area should become possible.

In the meantime, the Government has already introduced a number of positive measures to overcome the problems it sees in the area. The Government has given particular priority to the stimulation of the level of industrial research development activity through the provision of financial incentives and support for new technologies

- In 1983/84, substantially increased funds were provided for science and technology research under the Australian Research Grants Scheme and for Marine Science and Technology programs;
- A national Biotechnology Scheme has been established;
- Additional funds were provided for public interest projects for industrial development and for the establishment of innovation centres;
- New research associations have been formed to encourage co-operative industry research development,

- Government purchasing policy has been strengthened and offsets policies are being reviewed to see how these areas of Government activity can best be co-ordinated with our approach to science and technology; and
- We have introduced the National Research Fellowships Scheme to provide individuals and research teams with opportunities to undertake research of national significance, with a view to strengthening Australia's development capacity.

The Government has also supported the establishment of Sirotech to take developments pioneered by the CSIRO to commercial application. It is particularly pleasing to note that universities and research institutions have also adopted this approach by setting up commercial ventures to market their own research findings.

The Government is, as well, offering substantial taxation benefits to promote the development of a venture capital market in Australia. We aim to reduce the risk in taking up new technologies and to help small business to exploit available market opportunities. This should help businessmen to take Australian, or overseas technological breakthroughs, and turn them into profitable business ventures.

All these measures, in one way or another, are designed to close the gap between research and product development; to accelerate the rate of technology transfer into new products and processes.

But there still needs to be much greater dialogue between industry and scientists and we need to look closely at mechanisms to facilitate this.

Australian scientists themselves should examine their role and be alert to opportunities to transfer technology from laboratories, universities and research institutions to businesses in Australia.

At the same time, decision makers in the business community, whose attitudes to new technology are so critical, could usefully reassess their individual R and D efforts, to ensure that they are making an optimal contribution to the long-term strength of their enterprises.

We have the research capabilities, the creativity and managerial talent to meet the challenge.

The official opening of this new laboratory, with its excellent facilities, will I hope, provide renewed impetus to CSIRO's research and technology transfer activities and mark the beginning of a new era in scientific research and industry collaboration.
