

# Australian Academy of Science

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The Committee Secretary  
The Higher Education Review Committee  
Location 728  
GPO Box 9880  
Canberra ACT 2601

Dear Sir/Madam,

I have pleasure in enclosing some comments by the National Committee for Chemistry of the Australian Academy of Science on the Policy Discussion Paper, "Learning for Life".

Yours sincerely,

Tom Spurling  
Chairman, National Committee for Chemistry

## **West Review Discussion**

### **Policy Discussion Paper Response on 'Learning for Life'**

The National Committee for Chemistry welcomes the opportunity to comment on the policy discussion paper 'Learning for Life' produced by the West Review of Higher Education, Financing and Policy. We should like to make a number of summary comments particularly in the area of Research and Research Training as follows:

#### **1. Long Term perspective**

We note the 10 to 20 year perspective in the Policy Discussion paper and would reiterate the need for any change to be progressive in nature over this period rather than involving sharp step changes. By adopting such an approach we feel that the effect of mistakes would be minimised and adequate opportunity given for any change in policy direction which may be necessary.

#### **2. Post Secondary Education**

We note the emphasis on a fully deregulated post secondary education system but think that it is important that that system should be differentiated but integrated and not totally "seamless". This is especially true, we believe, for research where universities should still be the prime focus for pure basic research and that CSIRO and other Government agencies should have as their fundamental focus strategic basic and applied research, while the TAFE sector could be involved more with applied research. However, we would support greater collaboration and interaction between these differentiated sectors since divisions between research boundaries are not always clear cut and in fact a lot of exciting and potentially beneficial research is done on these boundaries.

The setting of national research priorities is a process fraught with difficulty and potentially counterproductive to creative endeavour. Perhaps very broad areas could be set (ea. solar resource utilisation or new materials or pharmaceutical science) but finer priority setting has the danger of running counter to the speculative, uncertain research process itself.

### 3. Funding for Research and Research Training

We agree that this matter needs further assessment and would tend to favour the proposed medium impact model as far as ARC funding is concerned. However, NH&MRC also needs to be intimately involved in the funding policy process in view of the magnitude of NH&MRC involvement in research and research training in the medical area which also involves basic science. Basic research infrastructure improvement in the post secondary system must also be a high priority.

We have serious reservations about the practicability and necessity for a national allocation of scholarships to post graduate students. We think it would be extremely difficult and cumbersome to draw up a national priority list for scholarships, taking into account differences between fields and also students.

### 4. Research Training

We would support the broadening of research training for higher degree students to include more explicit emphasis on generic skills, while still maintaining as the primary focus the study of more open ended research problems. In order to increase or maximise that skills training, serious consideration should be given to staff secondments and interchange between industry and university sectors and also involving CSIRO and other government agencies. Also student secondments and interchange should be encouraged where the projects are appropriate. Thus part of their time could be spent in industry and part in CSIRO, as well as in the university sector. Opportunities also exist here for putting into practice the lifetime aspect of learning stressed in the Discussion Paper, which we would support. For example, new specialist higher degrees should be encouraged at the Masters level for upgrading postgraduate qualifications or giving former graduates the opportunity to train in new areas to meet future needs.

### 5. Internationalisation

We feel that this aspect was not fully developed in the discussion paper, yet it is one which is absolutely vital to the future development of the post secondary education sector in Australia. If one considers just the higher degree component we would urge consideration be given to innovative new degree structures which involve use of the World Wide Web and other electronic communication means to facilitate research training

opportunities between countries and also to include in the new degrees, funded opportunities for students to spend time in overseas research laboratories or for overseas students to spend time in Australian laboratories. In this way, a truly international perspective would be engendered which could be of great value in terms of the types of problems tackled and the benefits to not only the Australian community but the world community as well.

## 6. Student/Staff Compact

While the emphasis in the Policy Discussion Paper is very much student centred, and certainly this is important, changes in the post secondary education system should clearly acknowledge that it involves a student/staff compact at its very core. Education is an interactive process between students and staff and hence the effects of a deregulated system on staff, as well as on students, must be taken into account and considered seriously. Ways must be found to improve staff motivation and also to ameliorate work loads in the face of declining staff numbers.