

Commercialise or Cop Cuts

With all the “reviews” of research and the delayed legislation for university “reform”, it’s hard to see anything but a messy end to 2003 and start to an election year. The government’s decision early in this term to “fix” policy and finance for universities first and to defer looking properly at science for another year was plain silly.

Notwithstanding continuing angst about CSIRO, higher education and research are so intimately linked that separating them has thrown long-term planning for both areas into chaos. CSIRO keeps having to redraft “Strategic Action Plans” that cannot be adopted until the May 2004 Budget, when maybe their long-suffering scientists will get a budget allocation for more than 1 year.

Research on national issues should be guaranteed adequate support over a period of decades, and not depend on whatever external revenue can be squeezed out of contract work and patents. But the government’s imperative for universities and CSIRO to commercialise or cop effective cuts has now emerged in full flight.

The pilot is Chief Scientist, Dr Robin Batterham, who popped up in a pair of major articles in the *Financial Review*, which has suddenly discovered the “business” angle of universities and CSIRO (while ignoring the science).

University leaders and academic staff have come out solidly against Education and Science Minister Dr Brendan Nelson’s “reforms”, which give the government, through its bureaucrats rather than any representative arms-length authority, intrusive powers over what they may teach. It is evident that “micro-management” of CSIRO is becoming the norm across the board.

The Realistic Way

The few advocates within government of a looser approach to funding are battered by the Batterham ram for commercialisation. They appreciate the reality from studying experience overseas.

Australian dogmatists should take note of the Australian-educated Sir Alec Broers, who retired in October as Vice-Chancellor of the University of Cambridge, UK. “It is a mistake to believe that universities can make a significant amount of money out of patents and licences,” he told *Razor*. “Universities are very lucky if they make 2–3% of income from this. To make real money you’ve got to develop full technologies and go through the whole process of market, and that’s the job of industry.”

The new President of the Federation of Australian Scientific and Technological Societies (FASTS), Prof Snow Barlow,



Chief Scientist Robin Batterham during his last public appearance before scientists and the media at the National Press Club in Canberra, November 2002.

also highlights the dangers in his *conScience* column (p.43) by exemplifying the plight of young scientists in surviving their first career rung of postdoctoral fellowships that might, if they are lucky, support them for only 1–2 years.

Revealing Leak

It was not with great hope that scientists heard a “debate” on science policy between Science Minister, Peter McGauran, and Opposition spokesman, Senator Kim Carr, during the Science Meets Parliament days organised by FASTS in October.

While McGauran spoke on the government’s “achievements”, science policy has been kept in a backwater. The government would like us to forget that the first of its sustained attacks on the “elites” was on Australia’s brilliant astronomers. A month after taking office in March 1996 the government hit for six the invitation by the European Southern Observatory for Australia to share the construction and operation of its Very Large Telescopes in Chile – a fantastic mark of respect to Australian talent.

Carr stirred the pot by flourishing a revealing leak from inside government. *Razor* has received a full copy of the interim report of the Science Mapping task force. Dated 20 August 2003, it was marked “IN CONFIDENCE” on all 350 pages. The task force was established to assess how well Australia is travelling with scientific education and research, and will inform decisions on R&D in next May’s Budget. This will be 8 years after the government first started slashing funding for universities and research.

That the “review” is being led by Batterham is no great harbinger of the big funding hike that is needed to stem the net flow of talent out of science or overseas and to reinvigorate fundamental and applied research. Three years ago, Batterham chaired a similar year-long examination of the “Science Base” and recommended substantial increases in funding.



Science Minister Peter McGauran at the AGM of the Australian Academy of Science last May.



Senator Kim Carr foreshadowed that Labor will release a policy for R&D soon.

But when Treasury and Finance got hold of the report, they hacked Batterham’s levels down to \$2.9 billion until 2005. This was only enough to stem the slide of support as a proportion of Gross Domestic Product.

Key projects within the 2001 package, like Major National Research Facilities and Federation Fellowships, were of minimal net value to universities as they were required to match government funding. Similarly they were of minimal value to CSIRO, which recently had to refuse one of its atmospheric researchers from accepting a Federation Fellowship.

The 2003 Science Mapping uses the government’s own numbers to show unambiguously that “Australia’s investment in research infrastructure is decreasing”. Capital expenditure fell to 8.8% in 2000–01 as a percentage of gross expenditure on R&D from 13.9% in 1998–89.

After a steady rise in the number of degrees awarded in

science and engineering from 1985, the total has fallen from 36,100 to 33,800 per year in 2001. The report records that “cost pressures can be acute” in support service like libraries, for which the cost of scholarly journals has increased by 175% from 1986 to 1998.

There are 618 fewer academics in science in the decade to 2000, and 112 fewer in mathematics and computing. Student/staff ratios have risen to around 20:1.

The report acknowledges that, at 1.53% in 2000–01, national investment in R&D as a proportion of GDP “remains well below the OECD average of 2.24%” (16th out of 24 countries), noting this is principally due to low levels of business R&D. Unlike the “Science Base” report of 2000, it does not make any recommendations on funding to government, a tactic to keep the real “process” under wraps in-house.

At the debate, McGauran tried to sideline the significance of this leaked report by saying that the figures were only up to 2001. “We have got no later data and it validates Backing Australia’s Ability,” he said. He defended the government’s refusal to allow Batterham to appear before the Senate Estimates Committee, stating that Chief Scientists “are not statutory office-holders. They are contracted advisers to the government and I don’t think it is appropriate.” Unlike last year, Batterham did not speak at this year’s Science Meets Parliament.

Carr says that Batterham may come under further scrutiny over disputed costs he provided for sequestering carbon dioxide underground (see pp.39–40). He told *Razor*: “I am not attacking Batterham personally, but the data used by him will end up in a Senate inquiry”.

Carr foreshadowed that he and Labor leader Simon Crean will release a policy for R&D, but would only say that it will be “soon”. However, he did declare that one plank will be to make the Chief Scientist a full-time post, as it was originally in the Hawke Labor government.

CSIRO Leadership

CSIRO leadership is under pressure from the Geoscience Council and staff over huge cuts in the Exploration & Mining Division, and for providing incomplete answers to Senate Questions on Notice about seemingly odd commercial activities in the Forestry Division.

The secondment of Dr Rob Floyd from the Entomology Division to a task force on “anti-terrorism” (the purpose announced internally) in the Prime Minister’s Department continues to raise eyebrows. “Anti-terrorism” is far from the benign nature of CSIRO’s long-standing work in biosecurity.

Razor is gathering information from senior scientists for a thorough examination of this grey field of “security”, including CSIRO’s confidential contracts with the Defence Science & Technology Organisation.