

# Budget cuts hit Australian industry R&D

Canberra. In its first budget since coming to power in March, the new conservative Coalition government of the prime minister, John Howard, has reduced from A\$790 million to A\$341 million annual funding for a system of tax breaks designed to encourage research. But major public research programmes emerged relatively unscathed from the austerity budget, aimed at reducing the country's budget deficit by A\$4 billion over the next year.

The cut follows the government's closure last month of another scheme to promote industrial research, a "syndication" scheme, which allowed pooling of investments in research and development (R&D) to attract tax concessions. This saved the government some A\$225 million annually. Similarly the government last week announced a 5 per cent cut in funding for the universities (see *Nature* 382, 569; 1996).

The treasurer, Peter Costello, is relying on an improvement in business confidence and investment to spur growth in the economy. The effect of the cuts on support for industrial research will be watched closely. The former Labor government has introduced the tax breaks schemes as an incen-

tive for Australia to become more innovative and competitive. Over the decade that the programme has been in operation company spending on research has increased considerably from a low starting point.

The effects of the cuts may be offset to some extent by a new programme (the "Start Program"), announced by John Moore, the industry and science minister, which will provide competitive grants, loans and subsidized interest rates. The scheme is estimated to cost A\$520 million over four years, about half the cost of the axed syndication scheme.

The national research agency, CSIRO, gets an extra A\$20 million over three years on an annual appropriation of A\$449.7 million. The innovative scheme of Cooperative Research Centres will be maintained with an A\$19-million increase in funding to A\$150 million for 64 centres, one of which will focus on space research. The Australian Research Council, which makes competitive grants to academics under the education ministry of Amanda Vanstone, will receive A\$396.2 million (up from A\$346.4 million), with most of the increase going towards infrastructure for university research.

While changes to public and private health insurance dominated the statements by Michael Wooldridge, the health minister, medical research has been increased to A\$181.5 million. The government also offered "to match the offer of funding from the Wellcome Foundation in Great Britain which will mean significant additional funding for biomedical research in Australia". No figures are yet available.

In its Innovation Statement last December the former Labor government unveiled a package of measures to improve Australia's capabilities in basic research and apply it to economic goals (see *Nature* 378, 653; 1995). Seven Major National Research Facilities approved then have survived unscathed with Labor's grant of \$62.4 million, but the new government has saved A\$20 million by axing two of Labor's "Innovation Flagships", allowing only an institute for magnetic resonance diagnosis of cancer to proceed for A\$3 million.

Speaking of the impact of the budget on science, Peter McGauran, minister of science and technology, said: "Our commitment will maintain Australia's world class science and research effort". Peter Pockley

## Threat of ban hangs over Israeli archaeology

**Jerusalem.** Israeli archaeologists were dismayed this month when Meir Porush, deputy minister of housing and construction, ordered the Israel Antiquities Authority to abandon a salvage dig because the site may contain ancient Jewish graves. They fear that the decision, the latest in a series of restrictions on archaeological work, may make it next to impossible to document and preserve Israel's ancient history.

The decision also raises the issue of where the new right-wing Likud government will stand in the long-running conflict between archaeologists and the ultra-orthodox groups who contend that excavation of graves violates Jewish religious law.

The groups made an important gain two years ago when the attorney-general, Michael Ben-Yair, ruled that under Israeli law human remains are not "antiquities". This means that researchers are not allowed to study bones they discover, but must hand them over to the Ministry of Religious Affairs for reburial.

Many archaeologists and anthropologists oppose the ruling, arguing that the study of human remains provides important historical and scientific information. They are concerned by the prospect that ultra-orthodox groups might succeed in having the ban on studying human remains extended to include work on the graves themselves. That would make it

almost impossible to excavate, they say, because ancient graves are strewn all over Israel.

The dig at the centre of the current dispute is at a major construction site in Modi'in, a new town being built halfway between Jerusalem and Tel Aviv. Under Israel's antiquities law, whenever a site is deemed of historic or archaeological interest, the contractors must call in the antiquities authority to carry out a salvage dig before work proceeds. If the site turns out to be of particular importance, the authority may ask for construction plans to be revised, but usually the work proceeds after the site has been documented.

Because human remains are often found at salvage digs, they have frequently become the scene of violent demonstrations. Atra Kadisha, the ultra-orthodox organization that champions the fight against the excavation of graves, claims that Jewish religious law forbids the opening of graves under almost any circumstances. It insists that all graves must be left undisturbed, and roads and building schemes redesigned to bypass them.

"Tampering with bones" causes the deceased person's soul to suffer, says Rabbi David Schmidl, a member of the board of Atra Kadisha. "Even if there is important science to be found in a grave, it

can't be violated," he says. But other orthodox groups say that Jewish law permits both the transfer of human remains to a new site and some non-invasive studies of bones before reburial.

The ban on the dig ordered by Porush — a member of the fundamentalist Agudat Yisrael party — has reinforced concern that ultra-orthodox Jews may try to impose their beliefs on the rest of the population. In Israel's May elections, the two ultra-orthodox parties won 14 out of 120 seats in parliament, the Knesset, and they now hold several important government positions. The National Religious Party, which takes a more moderate line on excavations, won nine seats.

During the horse-trading to form a coalition government that followed the elections, Benjamin Netanyahu, the prime minister, promised the three religious parties that joined his government that all disputes over the excavation of graves would be resolved by a government committee. The committee has not yet been set up, but religious parties are said to understand that it will be sympathetic to their demands. Yossi Levi, the antiquities authority's chief archaeologist for the central region of the country, says that if the planned building scheme is abandoned, the site would at least "remain accessible to archaeologists rather than being built over."

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