

Editor's Note: We are reproducing Dr Pockley's original paper in Public Sector, 15 (1), 1992, in full, because it seemed that many of his independent observations on the dramatic science policy/practice division then being applied in New Zealand warranted revisiting in the light of the recently suggested major reorganisations. This paper encapsulated original reportage and analysis of a kind not published in New Zealand media at the time. Dr Pockley exposed New Zealanders to the facts and implications of the changes domestically through two feature articles in The Dominion (15 and 16 January 1992). After the major changes had been in place for six years he described and critically analysed the situation for the international science community through the influential journal Nature (29 January 1998), for which he was Australasian Correspondent.

Science restructuring raises serious issues*

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I needed no prompting that it was a dangerous mission to examine New Zealand's dramatic restructuring of its research organisation and to report the facts and my conclusions in the New Zealand press. Nobody likes to have 'foreigners' come in for a brief trip and leave behind a critical report.

I have made one survey of New Zealand science policy in early 1987, immediately after the Beattie Committee had reported, and had interviewed many key figures, including Mr Simon Upton, who was then in Opposition.

At that time, I had returned to Australia with such a positive impression of what was then being proposed that I wrote a long article warning Australians that New Zealanders had a new sense of optimism about science and could well overtake them in research.

When I returned after five years and conducted an even more thorough set of interviews with leading figures, the differences I observed between the hopes of 1987 and reality of 1991/92 were sharp. I had to conclude that the policies and practices of those I saw are internationally isolated, erosive of researchers' confidence, and costly. The question never answered was how the changes will help New Zealand science.

As I wrote in *The Dominion* on 15 January:

The optimism in official quarters for the outcome of the re-organisation has to be seen against a shrinkage of funds for research over eight years. This occurred despite the Beattie Committee's strong recommendation for a

* Reprinted with permission from *Public Sector* 1992, vol. 15(1): 18–20.



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doubling of public funds for research over seven years (i.e. to 1993).

This is not arrogance expressed from the distance of Australia (as alleged by Dr John Lancaster on Radio NZ on 9 February). I have genuine concerns that the economic and managerial dogmas which have come to dominate New Zealand public administration in recent years have now infected the organisation of scientific research.

'Organisation' is stressed because the dogmas are antithetical to the ideals of science which are such strong motivating factors for research. The restructuring of institutions will not, of itself, produce better research results. While the nation should determine priorities for use of research funds and improve the commercialisation of results, the politicians should not do anything which adversely affects the attitude and commitment of the researchers themselves. Scientists don't need to be treated as precious flowers, but if you don't put them first, and you mess them around with policy and management changes, you can't expect they can be driven to think better.

It is wishful thinking, as Dr Lancaster claimed, that Australia is following New Zealand's lead in science. There were deeply felt concerns in the Australian science community that the Liberal/National Party Coalition would copy Simon Upton's model for carving up government establishments. But, in a written statement answering my questions about the Coalition's future intentions for Australia's CSIRO (in which I did not ask if the Coalition would model any changes on New Zealand), science spokesman, Mr Peter McGauran said:

Any effort to break up the organisation, say, on New Zealand lines, would be counterproductive to say the least. I see no merit whatsoever in tinkering with the way CSIRO goes about its work.

The telling question of Dr John Stocker, CSIRO's Chief Executive, on hearing of the carve-up of DSIR ('Is New Zealand science shooting itself in the brain?') remains in force.

Dr Stocker followed up his critique with comments at the Scitech 2000 conference in New Zealand last June:

I am concerned that such a useful, successful and respected organisation [as DSIR] has disbanded and been replaced by the new CRIs.

I wonder about the CRIs. Each Institute has its own chief executive, its own board, its own bureaucracy and its own infrastructure and superstructure. I wonder whether one day soon we might see a committee of CRI chief executives meeting regularly with its own chair. I think eventually that committee might grow and develop. Forgive my mischief in suggesting that some people might want to call it 'DSIRO'.

The value of maintaining good international links at the level of major, national research organisations has been ignored. DSIR, for all its limitations as a government department rather than a partially autonomous authority like CSIRO, has won in 76 years an enviable reputation internationally which the small, specialised Crown Research Institutes have no hope of matching.

There have been a few stories in the press which indicated the deep disquiet among working scientists but there has been no serious critique of the basis of the changes and nobody has been repeatedly informing the public that the restructuring is a risky experiment with no international precedent or support.

One of the most telling indications of how defensive those involved in the restructuring have become has been the wall of silence thrown up about the true costs of the whole exercise. Wherever I went in politics or public administration I was told of the sacred duty of all publicly funded bodies to be 'transparently accountable'.

And, it was impressed on me at every point that outsiders cannot possibly appreciate how 'fundamental' are the changes in New Zealand public life unless they accept the value of separating policy advice and administration. It is dangerous, in this atmosphere, for insiders to query the separation, and for outsiders to suggest that this is dogma, is sheer heresy. Yet, I was presented with no evidence for tangible benefits of this split and was blandly told that the government has spent exactly the same amount in a year on advice as it did on public research – \$260 million!

New Zealand has more bureaucrats employed full-time in science policy than Australia with five times the population, and there is no evidence that the 'outcome' has been worth the substantial continuing cost which leaves even less funds in the budget for doing research. The policy bureaucrats may be 'accountable' according to the rules, but responsible for the real outcome of their advice (the quality of research results), they are not. The administration bureaucrats may be accountable, but responsible for the policies they administer, they are not. This is not an environment in which the policy makers and administrators learn from their mistakes.

Back to costs. I asked how much it will cost for the creation of separate boards, premises and administrations for the 10 Crown Research Institutes out of the abolition of DSIR, MAFTech, FRI, and the Meteorological Service. But nobody could, or would, reveal the costs – accountability and transparency flew out the window, even though the government is talking tens of millions of taxpayers' dollars.

Mr Upton told me on 17 December 1991 'the exact costs are not known at this stage. They are likely to be between \$20 million and \$40 million. We will know more in six months. No money will be diverted from the public science pool for this. We will fund the transition costs from other tax'.

The question was then put to Dr Andy West, Convener of the CRI Implementation Steering Committee. He said the total sum for all CRIs is known precisely but its release required Ministerial approval. 'We have a request under the Official Information Act and we are just working out how best to break the figure down into its various components.'

The foregoing two paragraphs formed part of the second of my features in *The Dominion*. Critical responses to those articles were published from Sir James Stewart (Chairman of the CRI Implementation Steering Committee), Mr Rob Arbuckle (Chairman of the Foundation for Research, Science and Technology), and Dr Basil Walker (Chief Executive of the Ministry of Research, Science and Technology). None of these people answered the question about costs – this matter did not rate a word from any of them.

Two standards of public administration seem to apply. Researchers seeking funds from the 'contestable pool' of funds administered by the Foundation have to spell out all their costs in great detail in advance. Why not the big spenders on restructuring?

No wonder there is such manifest disquiet in the ranks of researchers. I spoke to many of them as I wished to give Australian coverage to some of the research work being done in the DSIR, which is so outstanding that it has left me wondering what really prompted the politicians and bureaucrats to be so meddlesome.

It was quite astonishing to find that nobody was seriously addressing the alternative model of restructuring, namely creating a single national organisation.

There were clear advantages in merging the research elements of different government departments, but no merit, and certainly extra costs in then splitting the combined resources into 10 smaller and separate parts. Yet the model of a single authority for public research received scant attention by politicians and the hugely expensive policy machine – and certainly no detailed public analysis.

A single organisation could have been given statutory independence (like Australia's CSIRO) and, like the CRIs, could have been expected to earn some revenue from commercial activities. If it had been structured in separate divisions or institutes along 'sectoral' lines similar to the CRIs, the organisation would have shared common services and existing buildings and avoided the costs of setting up separate CRIs.

Mr Upton acknowledged that this alternative had been suggested but said it had been rejected early in the piece.

Two other aspects of the restructuring give rise to serious doubts which have not been adequately addressed in the planning:

- The expectations of commercial benefits to the CRIs are uproven and, in some cases, controversial.
- Removal of government scientists from public service restrictions may not release them to speak in public. Management in the private sector (where the CRIs will operate) is notorious for preventing company researchers from speaking out.

The decision to plump for the CRIs is therefore an experiment and by definition, risky. In concluding my articles for the *The Dominion*, I wrote:

New Zealand has to face the uncomfortable fact that, in comparison with its international competitors, it has been under-funding its research effort for years. Only a determined effort to break the cost-cutting mood will provide the support needed for long-term industrial and intellectual innovation in the nation.

Reorganisation alone, especially one as far-reaching and experimental as this one, is no answer.

From the very defensive responses made so far, I have no reason to alter that conclusion. And, lest defendants of the changes continue to brand my analysis as ‘mischievous’ (Sir James Stewart) and ‘quite misleading’ (Dr Basil Walker), let me record that I gave my articles for critical review to Dr John Troughton, a well informed New Zealander with 22 years’ experience as a research and senior science administrator. Dr Troughton, who was formerly Assistant Director-General of DSIR and is now General Manager, Technology, for Asia Pacific in the PA Consulting Group in Sydney, said he could find no error or fault in my observations.

His own conclusion was:

New Zealand has lost the plot. Science and technology are seen as critical factors in assisting export growth and reducing unemployment, and now is not the time to fiddle with the organisational arrangements. There was absolutely no need to use the CRI route to achieve contestability and accountability.

Dr Troughton is sceptical that the CRI system will encourage the major New Zealand companies to invest in Research and Development:

The New Zealand move runs counter to successful industrial developments in Asia which are removing layers of organisation and integrating policy and implementation at lower levels of the organisations.

This is an isolationist policy which is contrary to the scientific ethos and will not attract or hold the top-flight people needed. To cut and carve up the scientific community will

mean that research will be less able to act as a single unit for economic development. In going for separation of policy and implementation, New Zealand has lost the factors which go for successful science.

If nothing else, the response of Sir James Stewart confirmed the revelation in my second article in *The Dominion* that there was intervention in the extraordinary process of appointment of 55 people to the Boards of CRIs (even before an Act had been presented to Parliament, let alone passed). Quite contrary to the public posturing about independence of the process, several people (the number is unspecified) were invited to apply. And, all applicants for places on the Boards from DSIR, the nation’s dominant and most experienced research organisation, were rejected.

That there was political intervention in the appointments there is now no doubt, but it is a sorry reflection on the state of political morality and debate in New Zealand that issues, like the costs of the restructuring and appointments, have been suppressed.

The science story illustrates the effects of the nation going overboard for managerialism and economic fundamentalism. The standards now evident in New Zealand public life are unappealing to say the least.

Author’s note: *I am gratified that my analysis of the massive changes in organisation and funding of science in New Zealand seems to be still striking chords nearly two decades later. Throughout, the NZ Association of Scientists has been a special source of information and contact with practising researchers, which counterbalanced what I saw as dangerous spin emanating from dogmatic ‘reformers’. Professor Jack Sommer’s comprehensive surveys for NZAS of the attitudes of researchers have quantified their very real concerns.*

When I learned about the latest proposed round of ‘restructuring’ my immediate reaction was: ‘Here we go again with unfounded beliefs that New Zealand science will magically be “better” for the changes!’. Further, if the suggested amalgamation of CRIs into three ‘mega’ units is an improvement on the earlier, literal decimation of the DSIR, why not go the whole hog and re-create a single, wide-ranging national research organisation (like Australia’s enduring CSIRO) but one with statutory status similar to that of universities? The blending of the principal funding body in FRST into direct political control also raises major issues which have been articulated in the latest Sommer survey.

Such periodic tinkering with the support of science should be put to an acid test by the methods of the very discipline affected; viz. science itself. First, the original ‘reformers’ and their acolytes who enthusiastically implemented the expensive changes should be challenged to produce incontrovertible evidence of tangible, significant benefit by this time to New Zealand science and the nation at large. Then, the current crew should be put on notice of similar scrutiny to come.

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