

QUALITY IMAGE at TELSTRA

Telstra Research Labs has had a fine history. Now facing a cut of almost 50 per cent, its future looks grim and Australia's potential research and development performance will suffer. **Helen Meredith** reports.

Telstra Research Labs has been four years under the knife. Now it is entering the most hazardous period in its history, with cuts so deep they threaten to emasculate the organisation.

Workers recently picketed the labs at Telstra's Clayton complex in outer Melbourne. A *Four Corners* team shot footage inside, while print photographers hovered outside the gates, to capture on film the rare sight of industrial action in support of embattled researchers.

TRL is caught in Telstra's deep across-the-board staff cuts, with no part of the company spared as the carrier is groomed for a partial sale and full competition in July. A brutal 44 per cent (or 250) of TRL's jobs will go, taking out key research people as well as rank-and-file workers. They say there is now a climate of fear which is undermining the vigour required to undertake research.

TRL's role as a national test bed and proving ground is well recognised. It has served as the hub of telecommunications research in Australia, holding hands with other institutions and working collaboratively to kick-start smaller ventures, such as QPAC.

It has fostered intellectual focus and know-how in telecommunications, helped grow generations of outstanding engineers and allowed for cross-fertilisation of ideas.

TRL has developed a deep understanding of network architectures and kept abreast of telecommunications technologies around the world, enabling it to take a respected position in international standards setting.

This has earned Telecom, now Telstra, an international reputation for innovation, putting Australia on the world map in areas such as DRCN (digital radio concentrator services) and solar-powered communications, developed to meet Australia's specific needs.

But like more and more of the nation's labs, TRL is being required to turn its back on long-term research in favour of projects with a relatively quick turnaround.

The drivers for this are fierce global competition, the demand for greater efficiencies before a sale, the pace of technology change and tighter budgeting overall.

John Burke, the director of CIRCTT — the Centre for International Research on Communication and Information Technologies — sees TRL as a casualty of structural change that has not been thought through. "We've witnessed the transition out of monopoly into the competitive environment, so that where telecommunications policy used to reside in Telecom is now roils somewhere else," he said.

While a lot of attention is focused on competition and industry policies for the new environment, social and research policies have been languishing in the too-hard basket.

"We should be having a profound think about this," Burke says.

The Federal Government's trim-back policy is being felt right across the research community, with many Australian companies planning to take their R&D offshore now that the R&D tax incentive has been cut from 150 per cent to 125 per cent.

A study by Deloitte Touche Tomatsu shows some 34 per cent of companies are considering taking advantage of the higher concessions for R&D available in countries such as Malaysia and Singapore.

But according to the director of Deloitte's R&D services group, Graham Carew, the movement of revenue-earning capacity and technology to foreign countries will cause serious long-term damage to the Australian economy. John Burke says Canberra should be asking "what our intellectual capital is and how we generate it".



Telstra Research Labs workers formed a picket line in Melbourne to protest against staff cuts. **Photo: ERIN JOHANSSON**

No-one thinks Telstra should have to be the sole custodian of Australia's telecommunications research — the Cooperative Research Centres are already involved. But there is a belief that TRL should continue to do some work in the national interest, just as Telstra is expected to be involved in the delivery of universal service (access to standard phone services for all) no matter who owns it, after the market opens next year.

But workers claim TRL has been white-washed by a management culture with little or no sympathy for research strategies that foster Australian know-how. They point out that in the past the depth of knowledge within the labs has ensured sound decisions on the standards and design of Australia's networks.

This has also ensured that key infrastructure projects are not totally captive to market forces on the supply side. CEO Frank Blount's philosophy is one of buying off the shelf when possible and allowing some of the tinkering and tailoring at lab level to localise the technology.

Blount has presided over the structural changes needed to allow the carrier to reinvent itself to cope with deregulation, corporatisation, competition and now a

4 Rumours of cuts were denied but have had a destabilising effect.

partial sale. During that time, TRL directors have come and gone and the thrust of research has changed — according to whatever view of life management has at any one time and what is regarded as appropriate work for the labs.

As early as 1993 there were rumours that TRL would be wound back and funds directed towards certain projects at Bellcore in the US. Although denied by management this has had a destabilising effect. When Blount announced early last year that Telstra had signed a memorandum of understanding with Bellcore to develop software for Telstra's "full services network", it was regarded as the beginning of a trend that would weaken TRL.

This snuck in the crew of researchers who have co-operated with management for four years in downsizing and management restructuring. But with the new and deeper staff cuts, they have come to the end of their rope.

People are leaving on voluntary redundancies — 50 up to June 30 and another 150 in the latest round, out of a staff of 400. "They are

giving up and retiring long before they should," says CPSU project officer Dan Corch. Staff claim morale has plummeted.

Some of the jobs being cut are classified as non-core, which includes administrative staff, cleaners and library assistants. But key areas such as photonic networks, optical fibre quality control, ATM technology and socio-technical research are also targeted.

Blount says the "serious under-emphasis" on, and heavy cuts in, socio-technical research are a good indication of how little understood its role is on the carrier's much touted focus on customers.

Staff also want to know where Blount is spending the company's research dollars, given a reported increase in spending on R&D of 45 per cent in the past three years. At a more fundamental level, experts are asking if TRL is pared back so hard that it is allowed to slide into obscurity, can someone else do its job? And will that mean outsourcing research and leaving strategic decisions about our infrastructure to outsiders?

"Not to say that we shouldn't be asking how far we need to go with primary research, say in areas such as switching and video servers," Burke said, "but we should be ensuring we are an early part of the supply chain in emerging technologies, such as multimedia, taking up the banner in standards setting just as the TRL has in the past."

More embarrassing is the perception that developed countries carry out research and own intellectual property, and cash-strapped developing nations outsource everything, buying off the shelf and leaving foreigners to build and manage key projects.

Developing countries strive towards the day when they can move beyond bare-bones survival, start reversing the balance of trade and influencing outcomes themselves. And they know that to achieve export replacement they must create their own industry, supported by local R&D and investment. So where does that place Australia?

At the ANZAAS conference in Canberra, an ICI executive warned that Australia's increased use of overseas research would reduce technical competencies needed to stay competitive in the international market. "The end result is that errors in technology sourcing tend to become larger and larger and more frequent," Dr Paul Donaghuie said.

Blount's reliance on voluntary redundancies has resulted in humiliating experiences for some of the nation's most distinguished

telecommunications experts. Director Dr Harry Wragge AO, whose leadership put TRL on the international map, was promoted briefly to chief technology officer to get him away from TRL — and he resigned just six months later. Wragge was to be the last of the professional researchers to run the labs.

He was followed by Ray Liggett, sent in as a too-cuter but quickly removed when he became too sympathetic to the researchers. But the most embarrassing moment was when Doug Campbell appointed Dr Bruno Sorrentino as director. His qualifications were revealed as fraudulent and Sorrentino was summarily dumped. The labs then came in for another structural upheaval, with John Baits brought in from the UK to head the new Research and Information Technology division with responsibility for TRL.

Baits, too, fell from grace, reportedly disagreeing with management over the technical direction being taken. Jim Park and Noel Teede had been running the labs for him

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and as he departed Baits found a job for Park at Siemens Teede was left to struggle with a system of management called the Participative Approach — and he looked forward to early retirement, having made it clear he did not want to run the shop under the circumstances.

Graham Shepherd, who had started his career with Telstra in the late 1960s, came to run TRL from Australian Defence Industries. He has been unlucky enough to inherit the job at its lowest ebb and has failed to gain the confidence of staff. He and research director Hugh Bradlow have become the fall guys.

A meeting of CEPU members at TRL last month passed a vote of no confidence in them, sending a letter to Blount to let him know where things stood. The letter accused Shepherd and Bradlow of "leading the laboratories to the greatest loss of status and capacity" in its history.

Telstra is not alone in grappling with the role of its research labs. Brian Davis, the managing director of Norel Australia, pointed out last week the changing role of Bell Labs in the US and the difficulties Bellcore, an "elite research body" set up when the regional Bell companies were separated out from AT&T.