

Callaghan Innovation

Sir Paul Callaghan had a powerful vision for New Zealand. He was alarmed by the fragility of an economy trapped in a small number of low-productivity industries, many of which place a heavy burden on the environment yet rely all the same on our country's clean green image. His vision drew on his own experiences in helping to create the high-tech export business Magritek. This successful Wellington-based company makes portable nuclear magnetic resonance machines, a niche product by the standards of our primary sector, but one that is high-value and relatively unique.

Sir Paul argued that if we could create more of these types of businesses, we could build industries in which a small country could successfully compete and which did little environmental damage. His message was that we could succeed in niches, provided that we could look beyond our existing industries and back our scientific expertise in areas that have not always been traditional strengths. By protecting our environment, by building a just and tolerant society, and by embracing diversity in our science and industry, Sir Paul believed we could make New Zealand a place where talent wanted to live.

Enter Callaghan Innovation and its new chief executive Dr Mary Quin. Replacing the old Industrial Research Ltd (IRL), this new-look organisation will fund research and development in the private sector while undertaking its own R&D at labs in Auckland, Lower Hutt, and Christchurch. Operating as a Crown Agency¹, rather than a Crown research institute (CRI), it has a much stronger mandate for public good activities and will no longer have to make a return on equity for the government. Will it work?

One of the first decisions made by Dr Quin was that Callaghan Innovation would cease to bid into the pool of contestable funds administered by the Ministry for Business, Innovation and Employment for public sector researchers. This had long been a contentious issue for IRL. As the recipient of a relatively small amount of core funding, IRL was very exposed to competition with the universities. Over the years, many staff had struggled with the challenge of remaining relevant to such a diverse industry sector while at the same time maintaining strong academic curriculum vitae that could compete with their university colleagues.

Science staff at Callaghan Innovation will no longer face this issue. Yet there will be far fewer of them, at least in the short term, as the extra core funding that Callaghan

Innovation will receive is not sufficient to maintain the level of research and development activity undertaken by IRL. For this reason, the organisation has decided to focus on 'near-to-market' research and development that is relevant to existing industries. As I write, the 70–80 scientists at Callaghan Innovation, including myself, who undertake longer-term research targeted at future industries, are hoping to be transferred to a university or another CRI.

Staff who transfer to a university will find themselves in a very different environment. The pace of life at a university follows the ebb and flow of undergraduate students. As I was sternly reminded a few weeks ago, the university is 'a teaching institution, and teaching will come first'. This makes universities notoriously difficult for business to deal with. One of the challenges for Callaghan Innovation is whether it will be able to draw on the scientific capability of the universities in a timely and responsive manner, as the winnowed pool of scientific expertise that remains at Callaghan Innovation will be insufficient alone. It would be depressing indeed if this new agency resulted in an even greater gulf developing between our public science system and our diverse manufacturing sector.

Meanwhile, these newly minted academics will encounter new opportunities. Unlike their counterparts in the CRIs, university staff are entitled to a share of the benefits from the use or sale of any intellectual property they may develop in the course of their research. This provides university staff with greater incentives for commercialising their work. And this is a good thing, because now that Callaghan Innovation has declared its intention to focus on existing industries, the onus is on our universities to find and exploit the niche high-technology opportunities that Sir Paul foresaw. Ironically, it seems that, if Sir Paul's vision is to be realised, it will be through the path that his namesake agency has chosen not to follow.

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¹An organisation established under the Crown Entities Act 2004. Crown Agents must give effect to government policy as directed by the responsible Minister.