President's Column

This has been a difficult year for many scientists. The Crown research institute, Industrial Research Ltd, was replaced by a Crown agency, Callaghan Innovation. Despite several years of preparation, many stakeholders were surprised when Callaghan Innovation arrived without a clear operational plan or strategy. And unfortunately, its subsequent decision to exit from contestable funding processes and focus on product development rather than scientific research has left many scientific careers in limbo. While Callaghan Innovation is assisting as many of its displaced scientists to find academic positions as possible, it remains to be seen whether there is a long-term place in a post-PBRF university system for the type of research that Industrial Research did.

Hundreds of scientists at Invermay and Ruakura also face the dislocation of their careers as AgResearch consolidates operations in the new Lincoln Hub in Canterbury. Some will find jobs closer to home at the University of Otago or Waikato, but this illustrates yet again the career instability faced by scientists at the Crown research institutes. A stable career will be seen by many to be a luxury in the modern world, but the fact is that science and innovation typically operate on much longer timescales than the rest of the economy. One of the reasons that the public own scientific research organisations is to ensure that the benefits of deep, long-term research programmes are available to the country.

One of the biggest disappointments during my term was the National Science Challenges, which, in my opinion, did not live up to their billing. After an expensive prime-time television advertising campaign, there was only a lukewarm public response on social media. An occasionally patronising Twitter account turned some people off, while the Facebook page failed to facilitate any genuine dialogue between the scientists and the general public. It seems to me that this was a missed opportunity to engage the community with science and scientists.

The announcement of the selected Challenges also failed to inspire any enthusiasm, prompting the *New Zealand Herald* to opine that 'science is a black hole for taxpayer dollars'. For many, the Challenges carried an unfortunate air of bureaucratic sterility, lacking any real stretch or vision, and were too strongly aligned with the expertise of Sir Peter Gluckman's Peak Panel for comfort. One of my concerns was that this lacklustre list would become a *de facto* national science strategy, with the potential for unintended consequences right across the science system. Six months on, this looks like a very real risk. Is it too much to ask that our National Science Challenges follow a national strategy rather than dictate it?

The particular Challenge that is closest to my interests, 'Science for Technological Innovation', has so far proved too broad to act as an effective focal point for collaboration. The industry sectors that sit under this banner are diverse and operate in very different commercial environments. A year is a long time in the ICT or software industry, while the decades fly by when it comes to commercialising materials science. Perhaps the only thing that unites the industries aligned with this challenge is that they are *not* in the primary sector. Unfortunately, this Challenge will struggle in much the same way as Industrial Research Ltd did to remain relevant to such a broad swathe of industry players.

The fact that the science plans behind this Challenge are being formulated well before Callaghan Innovation has gotten out of first gear will only exacerbate this problem.

Nonetheless, it is pleasing that the Government has been prepared to invest new money in the science system over the last few years, whether through the Challenges or the Marsden Fund. Over the last few decades we have grown used to science funding being a zero-sum game, where postdoctoral fellowships had to be disestablished to meet the need for early-career fellowships. The fact remains that New Zealand's public sector scientists are amongst the most poorly funded in the advanced world (see Adam Jaffe's outsider perspective on our science system in this issue of the *New Zealand Science Review*). If there is one thing that will make the biggest difference to the operation of our science system, it would be an increase in the amount of funding available to individual researchers.

How do we make this happen? In April, the Association asked, 'What is the Value of Science in New Zealand?' at its annual conference chaired by Council member Nicola Gaston. We concluded that many New Zealanders do not place a high enough value on scientific knowledge, often mistaking its market price for its true worth. This makes us reluctant to make investments in generating the knowledge today that we will need to power our society in the decades to come. It is crucial that the science community continues to make its case to the general public of the worth of science and of scientists. We cannot expect the public to fund science if we fail to take this task seriously.

These issues and others continue to keep the Association busy. It is only through the dedication and enthusiasm of our Council that we are able to maintain a voice on these issues, so I would like to thank all those members of Council who have made contributions over the past year. In particular, our Secretary, Fiona McDonald (at Otago University in Dunedin), continues to provide sterling service for Council, despite the fact that she is not able to attend Council meetings. I would also like to thank Peter Buchanan, our other non-Wellington Councillor, who has run our awards process for the last two years. Joanne O'Callaghan joined us this year and has played an important role in maintaining a relationship with the Wellington Early to Mid-Career Researchers Forum.

There are many challenges that I leave for the incoming President. Firstly, one of key sources of value delivered to members by the Association over the years has been the *New Zealand Science Review*. In keeping with the times, and in the spirit of the open dissemination of scientific knowledge, this is now available to the public on our website. This has prompted some to question the value of an NZAS membership given that many of our principal offerings are available for free. We are not alone in facing this modern-day tragedy of the commons, as publishers of all stripes struggle with the challenge of financing their product in an on-line world. The Council will have to make some important decisions soon about the delivery of value to our members; as with the scientific enterprise itself, the Association's true worth to society is not reflected by its market price!

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