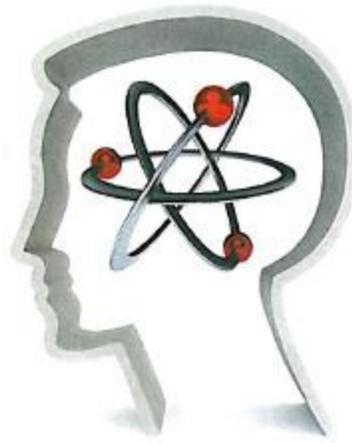


The nation needs to rethink how we might help take our scientists' innovation to the marketplace, writes **GEOFF GARRETT**



AUSTRALIA'S FAIR ADVANCES

SCIENCE IS A BIT LIKE A CLOSE game of rugby in that getting extra points on the board after tries – through conversions – makes all the difference.

And there's an analogy here with the highly competitive field of innovation - "ideas successfully applied". We need to be converting more tries - better harnessing our research efforts in driving economic growth.

Conversing with bright minds - last year as a visiting Fellow at the ANU, and this year in discovering the brilliant science happening in the Smart State - I'm worried.

My concern is that the performance pendulum is swinging out too far. The overarching metric - and what gets measured gets done - still seems to be driving journal publication, almost to the exclusion of everything else.

My observation, and indeed fear, is that we are steering a generation of young academics away from the effective application of their research findings.

The recent ERA benchmarking exercise - Excellence in Research for Australia – has done much for revealing where our science is world-class, and where it isn't.

What I am arguing for is balance.

The thesis is a straightforward one.

One: We are faced with a serious productivity challenge in this country. Years and years of labour productivity decline.

Two: Innovation - ideas successfully applied, remember - is a major key to productivity growth.

Three: Our universities and our publicly funded research agencies (PFRAs) are rightly considered engines

for bright new ideas.

Four: But - and it is a big but - effective collaboration between the academic environment and business is a prerequisite for effective application.

Five: We are lousy at the game of collaboration. Low on the OECD collaboration league table, a recent ABS study found that only 2.4 per cent of Australian innovation-active businesses collaborate with our universities. Not good.

We must accelerate discovery to delivery, and the rapid transfer/diffusion of technology between research and the market - ensuring that we just don't do great science but that it gets taken up, rapidly and effectively, creating jobs, wealth, and improvement in quality of life.

There is a major gap between what we know and what we actually apply. Basically it's a crying shame that there is so much great stuff around, in journals, on shelves, in heads, which is not getting utilised, or built upon. As per the Bill Murray film, it gets Lost in Translation.

We could change the rules of the game, for example by:

- Linking substantial national grant money to the collaboration imperative - linking researchers with end users, early;
- Changing our advancement / promotion, plus rewards and celebration criteria in the research environment, to put collaboration and the successful application of ideas right up there with the equally important research excellence;

▪ Introducing a separate, scalable measure of innovation impact. Not without challenges, it's still not rocket science: as the great US strategic thinker and Nobel laureate, Herb Simon once said, paraphrased: "Innovation Is about borrowing."

There's no need for wheel reinventing, there are good approaches around and - happily - there's some action emerging in this space.

And far from reluctant brides, being dragged kicking and screaming to the altar of collaboration with the dark side, long experience suggests that top-class researchers are really keen on their works having impact. There are, of course, a number of other levers we can, and should, pull to drive the innovation agenda but getting us holding hands better is much needed.

A final point, however: it takes two to tango. Telstra chairwoman Catherine Livingstone notably lamented: "If only Australia knew what Australia knows." We need business, government and the community to be "greedy gobblers" for research outcomes and technology solutions.

Otherwise, a lot of good R&D dollars are headed down the drain as far as benefiting Australia is concerned.

I hope I'm not flogging the proverbial dead horse. But I'm fearful, our innovation racehorse might just be heading that way.

Dr Geoff Garrett AO was appointed Queensland Chief Scientist in January. He was chief executive of the CSIRO from 2001 to 2008.