

31/06/2015

Submission to *Vision for a Science Nation* consultation paper

We welcome the opportunity to make comment on the Government's *Vision for a Science Nation* consultation paper, responding to the Chief Scientist's *Science technology, Engineering and Mathematics, Australia's Future*.

STA represents the nation's over 68,000 STEM professionals, working in every discipline across the private and public sector.

We have encouraged STA members across the full range of STEM disciplines to make comment from their particular perspective. We do not intend to go to each and every point, policy plan or proposal. Rather we will make some high level comments about the approach outlined in the *Vision* document as a whole.

The nation's scientists have long called for a coherent, long term plan for investment in Science Technology Engineering and Maths (STEM) in order to make best use of natural talent, scarce resources, and to set our economy on a firm footing as the resources boom wanes.

Every day this becomes more pressing as competing nation's in our region and beyond move quickly to embed STEM as the basis of their continuing prosperity.

We applaud the significant steps that have been made to lock in a STEM strategic plan by the Chief Scientist for Australia Professor Ian Chubb, and now by the Federal Government, Ministers Macfarlane and Pyne, in this document.

We fully support the Government's view that science must become one of the bedrocks of our economy, and that:

... a STEM strategy is about far more than simply igniting a passion for STEM in our classrooms. It's about applying STEM skills to address the challenges we face as a country, and to ensure we can maximise our opportunities in a rapidly evolving and increasingly competitive global economy.

(Minister's Foreword, *Vision for a Science Nation*.)

We agree with the Government regarding the centrality of STEM to productivity, the need for better STEM business collaboration and more and better educated STEM teachers. We all need to step up, no one disputes that.

Our concerns lie in an apparent disconnect between the rhetoric and the reality in the *Vision* document.

The aims and aspirations articulated are worthy, but it is hard to see how they will be achieved with the set of existing structures and programs included, especially given the reduction of many that directly support a strong innovation system.

Some examples of shrinking programs and funding include:

- Cuts to the Cooperative Research Centres program in both of the last two Federal Budgets, reducing of number and scope of centers, and inevitably reducing the high level collaboration with between science and industry that the program is renowned for;
- Australian Research Council's Future Fellowships designed to maintain the flow of our top, mid-career researchers cut from 200 a year to 50 a year;
- Cuts in the May Budget of \$300 million to university research (the SRE component of the research 'block grant') the raw material that fuels innovation and productivity, and
- The precarious, year-to-year nature of funding for critical national research infrastructure, which provides the backbone of the nation's research efforts.

Without a reversal of this downward trend, or a significantly enhanced commitment to the core programs that underpin the *Vision for a Science Nation*, it is difficult to see how the Vision will be realised.

A strong, connected, fully functioning STEM-supported, innovation system does not happen by accident. The nation needs a robust framework on which critical projects can be built, costly research infrastructure can be best utilised and the best return on investment achieved from our precious resources.

The scientists STA represents are committed the big picture for Australia, and the central role STEM can play in smarter, more productive and resilient future for us all.