“Who would want to live in a world made up entirely of scientists?” Australia’s Chief Scientist calls for cooperation

blogs.lse.ac.uk/impactofsocialsciences/2015/05/18/chief-scientist-ian-chubb-research-funding-australia/

5/18/2015

Reporting on a recent workshop where Australia’s Chief Scientist Professor Ian Chubb outlined the key priorities for research and funding, **Jacqui Hoepner** *discusses the long-term future of Australian research. Professor Chubb stressed the importance of having a broader national conversation about how they will achieve societal change and how researchers should work to meet those ends.*

A few weeks ago Australia’s Chief Scientist Ian Chubb led a workshop for scientists and academics at the ANU John Curtin School of Medical Research. Professor Chubb outlined his thoughts on the current state of research funding and how Australia should address future funding through strategic and long-term planning. He then took questions from researchers at different stages of their careers and provided advice on how to best navigate a sometimes unpredictable and uncertain funding environment.

Australia’s current and future funding landscape

Professor Chubb argued that Australia is substantially behind other countries in many areas of research support and commitment. While we are roughly on-par in terms of the percentage of successful grant applications, Chubb argued “we cannot afford to be middling.” He specified a distinct lack of funding certainty, strategic research priorities and co-operation between research and industry as the main areas holding Australia back. He said the good news is that the federal government has accepted the need for a more strategic focus in science research but this needs to be turned into something tangible.

Navigating Australia’s research future. Image credit: PH3 Thomas Northrup USN

Prof. Chubb is currently working on drafting recommendations and national research priorities. Chubb argued this

must be seen as a long-game and not susceptible to the election cycle. The US, the UK and the EU have had similar strategic research priorities for a few decades, so Australia must catch up. These national priorities will not be exclusive or exhaustive, but it is important to make sure good research is being funded and not slipping through the cracks. The next meeting later this year will be about ensuring the research that *is* funded is worthwhile and contributing to broader societal outcomes rather than looking at all research that *isn't* being funded. He argued we can't presume that more funding will be like "waving a magic wand" -even if we have more money, better facilities and technology, it doesn't necessarily guarantee the right people will be involved and the right outcomes will be achieved. What is needed is a long-term, bipartisan commitment to research- both pure and applied.

Professor Chubb stressed the importance of having a broader national conversation about what kind of Australia we want to build and how we will achieve it through concrete and strategic planning. When asked whether this workshop applied to just science, technology, engineering and maths (STEM) disciplines, or academia more broadly, Chubb quipped "Who in their right mind would want to live in a world made up entirely of scientists?" He said many of the challenges we face, whether it be climate change or vaccines, would not be solved through science alone. He said these issues require nuanced discussions about how we adapt to changes and what kind of world we want to leave behind. These "in-between areas", such as humanities and arts were crucial in understanding the broader social, political and historical contexts surrounding these problems.

Improving pathways and cooperation between academia and industry

Another area Professor Chubb focused on was the need to improve pathways between industry and research. He argued this is not done particularly well in Australia, with little common ground on time frames, vocabularies and priorities. He said this is going to become an even bigger problem, with so few academic positions for post-docs and other early career researchers. Professor Chubb said there needs to be a culture shift from our current 'publish or perish' system. This would mean recognition of and incentives for gaining industry experience, rather than a 'blank space' on someone's CV. He used the example of a researcher working in the private sector for several years and applying to return for an academic position. He said this candidate would generally be rejected in favour of an academic with more publications, even if the former has much more practical experience.

When asked who is to blame for this lack of co-operation, he said universities and industry were equally culpable, though government is in a position to "pull some levers and increase incentives". Professor Chubb said it was crucial for all three sectors- government, business and universities to tackle this issue with long-term commitments. Many PhD students are under the illusion that traditional academic pathways still exist. Prof. Chubb also touched on the significant decline in students studying STEM subjects and said this could be partly remedied by integrating practical, industry experience into existing school curriculum and undergraduate degrees.

Advice to early career researchers

Professor Chubb stressed the need for researchers to be completely open-minded and willing to embrace any opportunity that came their way. It is no longer enough to hope for a senior academic to headhunt early career researchers and eventually give them an academic position. These pathways have become incredibly rare and difficult to access, so banking on a plan like this unrealistic and unsustainable. Chubb said researchers should broaden their skill base and embrace interdisciplinary research as much as possible. Many of Australia's future challenges will not lie in one area and must be looked at more broadly. Accepting this and being open to a suite of options will allow researchers to better carve out a successful career.

Professor Chubb will draft strategic research priorities with the government later this year, before finishing his term as Chief Scientist at the end of 2015.

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About the Author

Jacqui Hoepner *is a PhD candidate at the Australian National Centre for the Public Awareness of Science at the Australian National University. Her project looks at the sometimes contested nature of research and what this means for researchers, knowledge and society.*