



Innovative
Research
Universities

Our Submission

Meeting Australia's Research Workforce Needs
Consultation Paper
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Charles Darwin University
Flinders University
Griffith University
James Cook University
La Trobe University
Murdoch University
The University of Newcastle

Introductory comments

Innovative Research Universities (IRU) welcomes the opportunity to comment on the Department of Innovation, Industry, Science and Research (DIISR) Consultation Paper, 'Meeting Australia's research workforce needs'.

Overall, IRU believes the Paper to be a helpful document with a number of important recommendations. However, we also believe that this Paper does not have a sufficiently global perspective and has not acknowledged some of the key complexities that will make reform of our research training processes challenging.

It is our belief that Australia needs to be far more aware of international best practice if it is to be successful as an innovation economy and if it is to be competitive in attracting high quality research students to Australia and in retaining our own locally trained students.

Our response addresses these issues and is organised around the nine questions posed by the Consultation Paper. We conclude our submission with our list of priority actions that we believe need to be undertaken by government, universities and industry.

IRU response to the consultation questions

Question 1: Do the issues identified adequately capture the challenges facing Australia in adapting to the changing nature of employer demand and meeting its innovation aspirations over the next decade? If not, what other challenges should be considered?

The Consultation Paper provides a useful account of three major challenges facing Australia in adapting to the changing nature of employer demand and meeting the Government's innovation aspirations. However, it underestimates four major difficulties.

First, the Paper only briefly notes that Australia's economy cannot currently be characterised as an innovation economy and that this is reflected in the number of researchers employed by industry. It is, of course, important that the Government seek to ensure that an appropriately trained workforce will be available as the economy

shifts in this direction, driven by other initiatives of Government as well as by market forces. However, it needs to be recognised that, as long as there is a lack of jobs and opportunities for career progression within industry for researchers, some of the other potential initiatives discussed by the Paper to make research careers attractive will have little impact. Greater engagement with industry on these issues is needed. The current tendency of Government to rely on consultation with a small number of peak bodies is insufficient.

Second, the Paper does not appear to recognise the extent to which university-based research training as a whole needs urgent review, including honours, masters by research programs and doctoral programs. Various issues are canvassed and valuable actions proposed in the Paper, but of a piecemeal kind such as a four year PhD including course work components. A major review of research training is required if we are to prepare students for diverse careers and provide appropriate training for students from diverse educational backgrounds and diverse life histories. In recent years a range of changes have been introduced or proposed by individual institutions such as professional doctorates and recent proposals to rename former masters degrees as doctorates. The ad hoc nature of many of these changes also points to the need for a coordinated approach to the reform of research training if we are to maintain and enhance the quality and international standing of Australian research degrees.

This coordinated review of research training should be done in the context of major changes happening internationally in the area of research training and more generally in higher education. It might be appropriate for this coordinated approach be taken through the Australian Qualifications Framework (AQF), to ensure that developments in research training in Australia at all levels are consistent with global trends such as Bologna. But Australia also needs to move to the forefront of these changes if we are to attract and retain high quality students. Developments such as the UK Doctoral Training Centres or the Graduate Schools funded by the German Government as part of its deliberately elitist 'Excellence Initiative' will make this hugely

challenging, especially in the face of the considerable government investment in such initiatives in other countries. These developments, some of which have been in place for some time, point to the urgent need to take advantage of this review of Australia's research workforce needs to look at best practice internationally and to take some bold steps.

Third, the Paper discusses several industrial issues, particularly the casualisation of the research workforce and the short term nature of many of the research positions in universities. It concludes that casualisation is not necessarily of concern and proposes that longer term competitive research grants could be a strategy to deal with the short term character of many contracts for research positions. Very little is said about the salary levels of staff with research training in industry and universities or of academic salaries more generally. Nor is there any discussion of the very unattractive nature of most university research assistant positions in terms of salary levels, job security and opportunities for career advancement.

We are not convinced that increasing the number of long term project grants through the different competitive grants schemes along the lines of the NHMRC program grants will address the issue of the lack of job security and casualisation of the research workforce in an appropriate manner. Such a move is likely to give enhanced funding to experienced, well-established researchers. But the senior researchers receiving these grants will not necessarily use the funds to employ early career or mid career researchers on longer term contracts.

IRU notes that the ARC Future Fellowships scheme was intended to some extent to address this issue by, first, extending employment opportunities for such researchers and second, requiring universities to have in place strategies to facilitate longer term employment for Future Fellows at the end of Government funding.

We would like to see this scheme continued with some adjustments, first, to integrate it with other ARC fellowship schemes and to make it more clearly focused on providing career paths for researchers. The IRU believes the NHMRC has a better model in

terms of how its fellowship schemes provide a clearer career path for researchers than is currently provided by the ARC. Second, the IRU believes that Future Fellowship scheme should be modified so that it is more clearly focused on providing greater security and a career path for full time researchers rather than providing a mechanism for continuing research and teaching staff to obtain four years of teaching relief. We note that this scheme will currently conclude after two further rounds. We believe that it should be extended with these modifications.

We also believe that the current Government's welcome concern with the full funding of research provides an opportunity to address the salary issues of researchers, including research assistants, and possibly the casualisation and short term contract issues.

Fourth, the Paper canvases current challenges to attracting high quality international research students posed by Australia's immigration policy and visa arrangements. This is an important issue for the recruitment of top quality research students and staff. IRU agrees that visa arrangements need to be streamlined and immigration policy more generally reviewed.

We would want to emphasise that visa issues are important not just in the recruitment of international students but for their retention post PhD and that they often represent a significant barrier to the recruitment of international students and for major international research collaborations.

Question 2: Do the issues identified adequately capture the challenges facing Australia in delivering required levels of research skills to its workforce over the next decade? If not, what other challenges should be considered?

We support the opportunities identified for workforce planning and development, succession planning, improving visa arrangements, increasing the mobility of researchers and addressing issues of under-represented groups such as Indigenous researchers.

We wish to note one further opportunity to meet employer demand in the future as well as to promote and enhance the quality and innovative character of Australian research

training. While the Paper canvases the opportunities for joint PhD across institutions, it limits its considerations to within Australia. However, the globalisation of research now means that there are increased opportunities and need for joint PhD programs between countries.

One example of a program developed along these lines is the Co-tutelle arrangements with France. However, many individual universities are also pursuing other such arrangements with other institutions in a wide range of countries, for example with Chinese universities. However, current APA and IPRS arrangements do not readily facilitate such developments and there has been little direct government encouragement and support for such activities.

IRU supports moves to encourage researcher mobility internationally and between industry and academe. On the latter we would recommend that the Government look to extend or develop additional mechanisms to the current Enterprise Connect Researcher Program.

Question 3: Do the issues identified adequately capture the challenges facing Australia in delivering required levels of research skills to its workforce over the next decade? If not, what other challenges should be considered?

IRU agrees with the issues identified regarding the challenges facing Australia in delivering the required level of research skills to its workforce in the short term and the long term. In particular, we note the decline in domestic commencing PhD and masters by research students, the increasing international competition for research students, the need for generic skills, and the need for more flexible arrangements for students undertaking research degrees.

However, we note that insufficient attention is paid to the issue of the remuneration of research students through the APA and the remuneration of research staff in universities and in industry.

We endorse the proposal to review the RTS to expand the fixed pool of funding through this scheme and ease the pressure on universities to engage in practices such as cross-subsidisation to increase the numbers of domestic research students. Similarly, the

IRU welcomes the proposal to review the current rigid distinction between high cost and low cost disciplines.

Question 4: Do the issues identified adequately capture the opportunities available to Australia to enhance its supply of research skills over the next decade? If not, what other opportunities should be considered?

IRU strongly endorses the proposals to extend the length of the APA, open APAs to IPRS students, remove barriers to the allocation of APAs to part-time students where appropriate (including taxation issues), allow greater flexibility to universities in the allocation of APAs (eg top-ups), review the full cost of research training, review the RTS, eliminate cross-subsidisation of research training, and review PhD and honours programs. We assume, although this is not noted in the Paper, that the extension of the APA to four years would also mean that the APAIs awarded to universities through the ARC Linkage Scheme would also be extended to four years.

We have a number of concerns with some of the other proposals put forward in the Consultation Paper.

As noted in our response to Question 1, the Paper discusses the need to review various aspects of the PhD and honours programs, but does not recognise the need for a more coordinated review of the full range of research training programs – the PhD, masters by research and honours programs of universities. Such a review needs to be undertaken urgently by universities, in consultation with industry and government and in the context of an analysis of best practice internationally. (We have reworded the Consultation Paper recommendation on this issue to reflect our views on this matter below).

In undertaking this review, universities and government need to address the diversity of research workers and the kinds of skills they require as well as the diversity of pathways into research training and into and within the workforce.

While we support the opening up of APAs to IPRS students, we believe that these students should compete with domestic students for APAs to ensure the quality of student intake.

Indeed we believe that universities should pay particular attention to this issue of quality of students and quality of research training programs more generally. Global and local competition for students has the potential to undermine the commitment to ensuring that students are of sufficient quality to undertake rigorous research training programs in our universities, as it has the potential to encourage a reduction in the quality of all our training programs.

IRU welcomes the attention paid by the Paper to the changing profile of research students in universities and to the number of students undertaking part-time studies. This poses significant problems for universities in ensuring that they are able to access high quality research environments but as the Paper notes it is also often a problem for such students accessing scholarships where appropriate to enable them to have quality time to undertake their studies. Taxation policies also need to be reviewed in this context to facilitate students undertaking part time work, particularly when this enables the development of employment skills when studying. We note that this matter has not been addressed in recommended actions and we address this in our list of priority actions below.

The Consultation Paper appears to regard the introduction of ERA in mainly positive terms for research training. In doing so it does not recognise the way in which this policy initiative potentially cuts across a key concern of encouraging interdisciplinarity. As a public policy tool that focuses on disciplines as a way of measuring quality of research in universities, ERA will potentially discourage universities from facilitating cross-disciplinary supervision either within their own institutions or across institutions. We very much support the proposal to identify a mechanism to recognise student publications by ERA but note that an unintended consequence of ERA could well be that students are discouraged from publishing because of the difficulty newer researchers may face in publishing in A* or A journals.

The Paper signals that it believes that ERA will be important in identifying areas of institutional research strength. It should be noted again in this context that ERA is disciplinary focused rather than focused on

national priorities which tend to be focused on issues. It also should be noted that ERA is a retrospective assessment of research quality and its value in determining future directions for research concentrations necessarily limited.

The Paper currently fails to contemplate more innovative moves to encourage cross-disciplinary research in comparison, for example, to the UK's considerable investment in Doctoral Training Centres.

Question 5: Do the issues identified adequately capture the challenges facing Australia in providing productive and viable career paths to its researchers over the next decade and promoting them adequately? If not, what other challenges should be considered?

IRU believes that the Paper has identified a range of important issues in terms of career issues for researchers. In particular, we support the points made about the decline in attractiveness of research careers, the low visibility of such careers, the global competition for attracting and retaining research staff, the problems of short term contracts, casualisation and providing stable positions with appropriate opportunities for career progression. Together these issues present a formidable challenge.

As such we do not believe the Paper gives sufficient emphasis to the difficulties and the importance of addressing these issues of employment conditions for the research workforce. Problems of casualisation, short term contracts, and relatively low salaries impact not just on the quality of life of researchers but on the attractiveness of this career choice for bright undergraduate students.

A further issue that has not been addressed sufficiently by the Paper is the question of supporting early career researchers in the immediate post PhD phase when many do not have the publications track record to win nationally competitive post doctoral awards. Some universities have taken innovative approaches to this issue in providing post-award 'write up' scholarships for such researchers.

Question 6: Do the issues identified adequately capture the opportunities available to Australia to better support researchers at the different stages of their careers over the next decade? If not, what other opportunities should be considered?

As indicated above, IRU is not convinced that increasing the number of long term project grants through the different government competitive grants schemes constitutes an appropriate mechanism to address this issue.

We believe, as stated above, that such a move will give enhanced funding primarily to experienced, well-established researchers but it will not necessarily result in the use of these funds to employ early career or mid career researchers on longer term contracts.

IRU supports the focus on increasing information on research career opportunities, removing barriers to staff movements between industry and academe and encouraging two way movements globally for research staff.

Question 7: Are the priority areas for action outlined in Table 1 the right ones? What other priorities should be identified?

Question 8: Does the allocation of responsibilities for priority areas and actions outlined in Table 1 adequately capture the respective roles of the relevant parties? Are there any issues relating to the allocation of responsibilities that need to be considered?

Question 9: Are the timeframes outlined in Table 1 appropriate? Are there any priority areas that require more immediate or longer-term action?

We will respond to these questions together.

IRU understands from the consultation sessions held in various locations nationally that the working party will seek to reduce the number of priority actions. We believe this appropriate and hence provide below the list of actions that we recommend should have priority.

We have no problems with the way in which Table 1 of the Paper lists responsibilities so do not comment on this, but we have reworked the timeframe proposed.

We have also reworded a number of the recommendations to take on comments we

have made above or where we think actions could be articulated more clearly. We include in italics new recommendations where the current Paper appears not to have provided follow-up actions to the issues it discusses or where we have introduced new issues for consideration.

We note that there is a different working party looking at issues of Indigenous students that will cover much of the ground of this Paper regarding appropriate forms of research training. Hence we have not listed any actions in regard to this issue here. We believe that they are most appropriately addressed in this broader context of higher education for Indigenous students where we hope that more flexible concepts of research training might be canvassed for Indigenous students.

Our priorities for action

In the short-term,

IRU proposes the following priorities for immediate action, with new recommended actions listed in italics:

- Universities, in consultation with government and industry, undertake a coordinated review of all research training degrees, including moving to four year degrees that incorporate appropriate forms of tuition focused on generic skills, *taking into account the diversity of research careers for which these training programs need to prepare students, the diversity of pathways into research degrees and into research careers and best practice internationally*
- The RTS be reviewed, including the current fixed level of funding for this scheme and the rigid notions of high cost and low cost areas of studies
- Four year funding for PhDs be provided consistently through all Government schemes, through RTS (or whatever replaces it), APA, APAs and IPRS
- Universities be given greater flexibility in the allocation of APA funding (including offering top-ups)
- APAs be made available to international students, *but IRU recommends that international students compete with domestic students to ensure that quality standards are maintained*

- *The Future Fellowships scheme be continued by Government, with some significant modifications, beyond the current planned four years.*
 - *Government and universities change funding arrangements to facilitate cross-Faculty and cross-University supervision*
 - *APAs be made available for part-time students, to recognise diverse pathways and life patterns for research students, and taxation policy disincentives for such arrangements be reviewed*
 - *Immigration policy, including visa provisions, be reviewed to streamline enrolments of international students, recruitment of international staff and arrangements for international visitors and to enable the retention of top students at the completion of their degrees*
 - *Longitudinal data be collected about HDR career pathways*
- *minor reforms of research training in Australian universities*
 - *The potential impact of ERA on research training in universities be reviewed including potential impact on support for cross-disciplinary, cross-Faculty and cross-Institutional supervision.*

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In the medium term or on a continuing basis,

IRU recommends the following priorities:

- *Universities review barriers to mobility of researchers between industry and university (such as promotion requirements, superannuation , etc)*
- *Universities continue to monitor and improve, where appropriate, the quality of support provided to international students*
- *Universities consider further addressing issues of professional development for early career researchers*
- *Universities enhance succession planning initiatives*
- *Funding models to encourage industry engagement with research training be extended beyond the current programs such as the Enterprise Connect Researcher program*
- *Mechanisms to encourage cross-disciplinarity be explored such as the UK's considerable investment in Doctoral Training Centres*
- *International best practice be reviewed and continually monitored by government and universities in determining future major and*