

Inquiry into Australia's International Research Collaboration

House of Representatives Standing Committee on Industry, Science and Innovation

Terms of Reference

1. The nature and extent of existing international research collaborations

Strong research ties between Australia and continental Europe with an over-representation of research project outcomes between Australia and Switzerland relative to population.

Strong economic links between Australia and Switzerland. In 2009 Switzerland provided a record high influx of FDI (foreign direct investment) into Australia, placing it in overall 6th position and in 2nd place for investment from European countries, behind the UK, but ahead of Germany and France.

Numerous agreements between specific Australian and Swiss Universities, publicly and privately-funded research Institutes, and respective Government agencies are already in place.

2. The benefits to Australia from engaging in international research collaborations

Building on existing fields of research strength

Development opportunities for Australian academics

Increased international exposure through publications

Access to expertise and infrastructure not available in Australia, including access for Australian scientists to world-leading researchers and their laboratory infrastructure that is too expensive for a single country (eg CERN)

Showcase the ingenuity and quality of Australian researchers which in turn leads to more overseas funding available in Australia to support collaborative research

Training opportunities for students, postdoctoral researchers, early career researchers and staff scientists. Adoption of the Bologna model of tertiary education in some Australian universities provides opportunities for facilitated exchange of undergraduate students

Access to a supply of high quality PhD candidates as the drivers/executers of fundamental research activity

Access to world market leaders for applied research and industrial R&D

Access to globally active companies for research translation

Participation in large-scale global research teams

Help building and perpetuating an “Australian Research Brand” on a global stage, which results in increased capacity to attract talented students and staff to Australia

Many international post-graduate/-doctoral students become future leaders/people of influence with strong links to Australia in their home country

Facilitated transmission of expertise, skills and knowledge throughout Australia

Increased productivity and impact of research through multilateral and bilateral collaborations

International collaborations stimulate mobility of post-graduate students, who ensure continuous enrolments in Australian higher degree courses during periods of declining domestic demand/skills shortage in areas of national importance

3. The key drivers of international research collaboration at the government, institutional and researcher levels

Enthusiasm and ambition of individual researchers/universities/research institutes to conduct research at the highest international level

Capability of maximizing available funding for research by attracting funding from both national and international sources

Limited Australian funding

Improve the quality of Australian research and its international promotion

To enable access to critical research infrastructure (unavailable or of limited availability in Australia)

Enhance knowledge and foster talent

Provide a network for academics and post-doctoral students.

Ability to position Australian research quality in leading European Academic/Industrial institutions

Increased capacity to attract investment into Australia

Gain critical mass in areas where Australia lacks capacity

Facilitate top quality research by facilitate exchange of students and postdoctoral fellows

Access to disciplinary colleagues and international networks/focus groups

4. The impediments faced by Australian researchers when initiating and participating in international research collaborations and practical measures for addressing these

No alignment of timelines for submission of grant proposals between Australia and Europe/Switzerland

Impediment of efficient and timely recruitment of Post-graduate research student due to (travelling-) cost of overcoming Australia's remote location

Limited scale of Australian activity in some sectors (i.e. Healthcare)

Limited availability of dedicated funding for international and country-specific bilateral exchange

Difference in review process for research proposal hamper managing of international initiatives – efficiencies to be gained from (bilateral) partnerships through reciprocal recognition of review outcomes

Lack of dedicated schemes (i.e. PhD and post-doctoral fellowships) for bilateral students and early career scientists

Limited funds to facilitate visits from international researchers, including incentives to Australian businesses to support international research collaborations

Complicated procedures by Australian immigration for individual researcher and their families (timelines of visa approvals, etc.), including reciprocal recognition of public healthcare systems (i.e. Medicare, etc)

Limited help for international researchers to deal with bureaucratic processes in Australia and host country

High tuition fees for international students and modest number of government-sponsored scholarships that, together, encourages some of the best students to move to countries other than Australia.

5. Principles and strategies for supporting international research engagement

Establish high level bilateral delegations (Federal Govt, Gof8 University representation)

Development of strategic approach to international research collaborations

More effective and better targeted use of funding support (i.e. specific initiatives)

Adjust restrictions on use of Australian research funding to opportunities provided by a global environment

Increase number of International Postgraduate Research Scholarships (IPRS) or subsidise bilateral tuition fee-waiving schemes

Align Australia's strategic aspirations as a leading knowledge economy with its immigration strategy

Benchmark Australian funding schemes and strategies against the best/most successful international practice

Raise awareness campaigns for existing funding opportunities other than the well-known ARC and NHMRC schemes

Introduce international standards to local peer-review system so that competitive proposals funded by an overseas agency can be eligible to Australian agency without significant additional review

Extend postdoctoral training schemes (akin to NHMRC's CJ Martin fellowships), which have an international and a domestic component to ensure that Australian recipients can establish their research career in Australia following their overseas training

Extend funding schemes that encourage and support Australian researchers who wish to participate in international collaborations

Provide more competitive funding schemes for research project-specific overseas travel

Provide competitive funding schemes for international researchers to work in Australia for a sustained period of time (1-3years)

Make Federal funding schemes open to applicants from nominated country as part of equitable bilateral agreements

Make Australia a favourable destination for international post-graduate students

Build on Australia's lifestyle image to attract researchers, incl. provision to support short term sabbaticals in Australia

Bilateral Fellowships schemes to bring researchers from a dedicated country to Australia and vice-versa for a sustained period of time