

SCIENCE & TECHNOLOGY AUSTRALIA

POLICY SUBMISSION

31 JANUARY 2023

DEFENCE TRADE CONTROLS AMENDMENT BILL 2023

Science & Technology Australia thanks the Senate Foreign Affairs, Defence and Trade Legislation Committee for the chance to give feedback on the [Defence Trade Controls Amendment Bill 2023](#).

Science & Technology Australia is the peak body for the nation's science and technology sectors, representing 139 member organisations and more than 115,000 scientists and technologists. We connect science and technology with governments, business and the community to advance science's role in solving some of humanity's greatest challenges.

SCIENCE & TECHNOLOGY AUSTRALIA RECOMMENDATIONS

1. Key exemptions to safeguard Australia's crucial global collaborations and research capability should be enshrined in this legislation rather than relegated to supplementary regulations.
2. The exemptions to be enshrined in the legislation should be developed in close consultation with Australia's research and industry sectors.
3. To avert curtailing crucial Australian research, regulations should reflect the twin imperatives to safeguard national security while maintaining Australia's research ability to collaborate with international partners and recruit the world's best STEM talent.
4. The Department of Defence should work closely with the higher education and research sector to assess the full impact of the legislation on Australia's research system – particularly the scope of the deemed exports controls – especially in its first few years.
5. The permit process for foreign nations from countries not listed on the DTC Foreign Country List must be streamlined and swift to avoid red tape and delays inflicting a loss of talent in Australia's research sector.
6. To safeguard crucial Australian discovery research collaborations, the Department of Defence should work closely with stakeholders to develop a workable definition and exemption for 'fundamental research' - and enshrine it as an exemption in the legislation (rather than in the regulations).
7. To safeguard crucial discovery research collaborations, the Department of Defence should work closely with stakeholders to develop a workable exemption and definition for 'public domain' material – and include it as an exemption in the legislation. This should include work intended for scientific publication in a thesis, journal articles and/or conference presentations.
8. To ensure researchers understand their obligations under the regulations, the Department of Defence should maintain:
 - effective online assessment tools
 - comprehensive outreach efforts – including through peak bodies
 - dedicated resourcing to provide tailored and specific advice to stakeholders as needed.

STREAMLINING COLLABORATION WITH THE US AND UK

Science & Technology Australia grasps the importance of enabling strong and trusted collaboration between AUKUS partners. Facilitating smooth and efficient knowledge transfer – alongside targeted new investments and workforce development – will be critical to advance the goals of AUKUS. This includes developing regulatory frameworks comparable to those in the United States, which is the primary goal of the Defence Trade Controls Amendment Bill 2023.

Introducing this bill in the Australian Parliament, the [Deputy Prime Minister and Minister for Defence Richard Marles noted](#) the legislation would ‘unlock defence trade, innovation and collaboration with our AUKUS partners’ and gave the following assurance:

These reforms are not intended to prevent foreign nationals from working with Australia on DSGI goods or technologies. They are not intended to prevent foreign students or academics from engaging with Australian academic institutions.

Indeed, much of the existing collaboration and trade between Australia and international partners will be unaffected by these changes.

Rather, the policy intent of the bill is to prevent sensitive defence goods and technologies from being passed to foreign individuals or governments in a manner that may harm Australia's interests.

Science & Technology Australia thanks the Australian Government for making this important statement of commitment to Australia’s powerful research collaborations with partner countries all around the world. Such collaborations – and the engagement of foreign students and academics in Australia’s university system – are crucial to Australia’s innovation success. At the same time, we note much of the specific detail that will determine exactly how researchers may be affected by the new amendments to the Act is proposed to be laid out in the regulations, which are yet to be developed.

These exemptions will be crucial to ensure the legislation meets the objectives set out by the Deputy Prime Minister – and to avoid unintended consequences that damage Australia’s research and industry sectors. Close consultation with the sector to develop these exemptions will be essential, and strongly appreciated by the sector.

Given the importance of maintaining Australia’s strong international research capability, Science & Technology Australia strongly advocates for these exemptions to be enshrined in the primary legislation – rather than relegated to supplementary regulations.

Science & Technology Australia recommendation:

1. Key exemptions to safeguard Australia’s crucial global collaborations and research capability should be enshrined in this legislation rather than relegated to supplementary regulations.
2. The exemptions to be enshrined in the legislation should be developed in close consultation with Australia’s research and industry sectors.

With a clear grasp of the AUKUS partnership’s pivotal importance, Science & Technology Australia notes there are many other important research collaborations and partnerships that are also critical to secure Australia’s research capacity and maintain strong global relationships. Just as securing streamlined collaboration with the US and UK is key to advance the AUKUS partnership, other international collaborations are also pivotal to Australia’s research success.

With our strong reputation as a desirable and quality place to pursue STEM research, Australia’s research sector attracts talented people from all over the world. These overseas-born researchers – from PhD scholars right through to senior researchers – are a crucial component of our research workforce. We must continue to attract the best and brightest from all over the world to maintain our strong research capability. Any new legislation must be developed with a careful, risk-based



approach that navigates national security while maintaining Australia's ability to recruit the world's best STEM researchers.

It will be critical to establish a sensible threshold that does not constrain vital global collaboration and supports Australia's STEM research workforce to continue to draw on brilliant global talent, while concurrently protecting Australia's national security interests.

Science & Technology Australia recommendation:

3. To avert curtailing crucial Australian research, regulations should reflect the twin imperatives to safeguard national security while maintaining Australia's research ability to collaborate with international partners and recruit the world's best STEM talent.

INCLUSION OF ONSHORE ACTIVITIES – 'DEEMED EXPORTS'

One of the most significant changes the proposed legislation would introduce is that the transfer of DSGL controlled material to a foreign person without a permit will be an offence, even if that transfer takes place in Australia. The current Act captures only the actual export of material to another country. This proposed change could have significant implications for researchers, given the high proportion of foreign nationals working in research roles in our country who are helping to build Australia's innovation capabilities.

Science & Technology Australia acknowledges the extensive work by the Department of Defence in the [Impact Analysis](#) developed in conjunction with the bill. This analysis notes that in 2022, 67 DSGL export permits were issued to higher education entities. Of these, 20 involved partnerships with the US or the UK. Based on this analysis, the bill would lessen the administrative burden on the higher education sector associated with obtaining DSGL material export permits by nearly one third.

The analysis also notes that in the US, there is an average of 2200 applications for deemed export licences annually. The analysis converts this figure to an Australian equivalent, based on the comparative sizes of our economies – determining that there would likely be 150 deemed export applications per year in Australia, involving 5.8% of the sector.

While this gives a reasonable estimate – and in the absence of any other robust data, indeed, the only estimate – for the impact of the deemed export regulations in the Australian context, the analysis itself notes that there is considerable uncertainty in this assessment.

Careful evaluation post-implementation will be needed to properly assess the legislation's impact. It is by no means certain that the proportion of foreign nationals working in Australian research teams is the same or even similar to the US. Given the large number of foreign nationals working in Australian research teams and our national success in attracting the world's best and brightest to our country, there is potential for the deemed export regulations to be far-reaching – with a wider than expected impact on the Australian research sector. The Department of Defence should work closely with the sector to assess the reach of the new deemed export requirements, especially in the first few years of the legislation being in force.

Science & Technology Australia recommendation:

4. The Department of Defence should work closely with the higher education and research sector to assess the full impact of the legislation on Australia's research system – particularly the scope of the deemed exports controls – especially in its first few years.



CRITICAL EXEMPTIONS

Country-based exemption

The bill includes a provision that foreign nationals from countries included on the [Defence Trade Controls Foreign Country List](#) will not be required to obtain permits. This is a solid foundation for country-based exemptions to the bill, noting this list does not include some major collaboration partner nations for Australian researchers. For researchers who will need a permit to continue their work, permit application processes must be streamlined and swift – with fast processing and notifications. This is particularly important given the high compliance load already on the sector.

Science & Technology Australia recommendation:

5. The permit process for foreign nations from countries not listed on the DTC Foreign Country List must be streamlined and swift to avoid red tape and delays inflicting a loss of talent in Australia's research sector.

Fundamental research exemption

An exemption that covers basic research (also known as discovery research or fundamental research) will be crucial to maintain Australia's capacity to pursue bold research breakthroughs. Discovery research generates new ideas that do not necessarily have an immediate application – but are essential to build the knowledge that drives innovation and future applications.

The current [Defence and Strategic Goods List 2021](#) has an exemption for 'basic scientific research', defined as:

Basic scientific research: experimental or theoretical work undertaken principally to acquire new knowledge of the fundamental principles of phenomena or observable facts, not primarily directed towards a specific practical aim or objective.

With the purpose of the Australian legislation being to align Australia's regulatory regimes with those of the US, Science & Technology Australia commends the definitions in US legislation:

International Traffic in Arms Regulations ([ITAR §120.34\(8\)](#)):

Fundamental research is defined to mean basic and applied research in science and engineering where the resulting information is ordinarily published and shared broadly within the scientific community, as distinguished from research the results of which are restricted for proprietary reasons or specific U.S. Government access and dissemination controls.

US legislation includes further definitions for basic research and applied research ([ITAR §120.43](#)):

Basic research means a systemic study directed toward greater knowledge or understanding of the fundamental aspects of phenomena and observable facts without specific applications towards processes or products in mind. It does not include applied research.

Applied research means a systemic study to gain knowledge or understanding necessary to determine the means by which a recognized and specific need may be met. It is a systematic application of knowledge toward the production of useful materials, devices, and systems or methods, including design, development, and improvement of prototypes and new processes to meet specific requirements.

Export Administration Regulations ([EAR §734.8\(c\)](#)):

Fundamental research means research in science, engineering, or mathematics, the results of which ordinarily are published and shared broadly within the research community, and for which the researchers have not accepted restrictions for proprietary or national security reasons.



The Impact Analysis notes current *Defence and Strategic Goods List 2021* ‘basic science’ definition will be most likely be updated in line the US International Traffic in Arms Regulations.

Science & Technology Australia recommendation:

6. To safeguard crucial Australian discovery research collaborations, the Department of Defence should work closely with stakeholders to develop a workable definition and exemption for ‘fundamental research’ – and enshrine it as an exemption in the legislation (rather than in the regulations).

Public domain exemption

The *Defence and Strategic Goods List 2021* also includes exemptions for material in ‘the public domain’, defined as:

Public domain: means ‘technology’ or ‘software’ which has been made available without restrictions upon its further dissemination (copyright restrictions do not remove ‘technology’ or ‘software’ from being ‘in the public domain’).

The US International Traffic in Arms Regulations includes exemptions for material in the ‘public domain’ defined as ‘*information which is published and generally accessible or available to the public*’ through a variety of means, including through being ‘*published and shared broadly within the scientific community*’ ([ITAR §120.34](#)). Ensuring work that is intended for scientific publication – through thesis, journal publication or conference presentations – are included in a public domain exemption is sensible.

Science & Technology Australia recommendation:

7. To safeguard crucial discovery research collaborations, the Department of Defence should work closely with stakeholders to develop a workable exemption and definition for ‘public domain’ material – and include it as an exemption in the legislation. This should include work intended for scientific publication in a thesis, journal articles and/or conference presentations.

ENSURING EFFECTIVE COMMUNICATION

It will be crucial for the Department of Defence to give strong support and guidance to the industry and research sectors to assist stakeholders meet their obligations under the Act and DSGL regulations. Comprehensive explanatory materials, including online assessment tools to help stakeholders identify their responsibilities, and factsheets and outreach to universities and peak bodies, will be pivotal. They are needed to ensure the sector understands both the legislation’s context – and the implications when the legislation comes into force.

This should include dedicated resourcing for a key contact in the Department to give clear advice. This will enable stakeholders to meet their obligations and also prevent unnecessary permit applications that would be a drain on both university and departmental resources.

Science and Technology Australia Recommendation:

8. To ensure researchers understand their obligations under the regulations, the Department of Defence should maintain:
 - effective online assessment tools
 - comprehensive outreach efforts – including through peak bodies
 - dedicated resourcing to provide tailored and specific advice to stakeholders as needed.



Please do not hesitate to contact Science & Technology Australia if we can help with further information or advice to the Committee.

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