UNIVERSITIES AUSTRALIA
DISCOVER LEARN LEAD

Chief Executive:
Belinda Robinson

10 August 2012

Dr Kathleen Dermody
Committee Secretary
Senate Standing Committee on Foreign Affairs, Defence and Trade
Parliament House
Canberra ACT 2600
fadt.sen@aph.gov.au

Dear Dr Dermody

Defence Trade Controls (2011) Bill

I am writing to advise on the progress to date of consultation by the Department of Defence with the university sector on the Defence Trade Controls (2011) Bill following hearings in March this year and the subsequent extension of time for the Committee's report.

Since March, Universities Australia has engaged in discussions with the Department of Defence with the intention of securing a workable outcome. Despite early promise of progress and a commitment from the Department to work collaboratively, we have been disappointed that there has not been the opportunity for open or considered sectoral engagement on the issues, and to date adequate responses to our concerns have not been provided.

Given the complexities, participation in the initial consultations (post March) arranged by the Department was limited to a small number of Defence officials and university representatives. It was also agreed that these would be held in confidence. The goal was to develop a proposal upon which a broader consultation could be based. The discussions were collaborative in spirit and, we had understood, founded on the shared objective to give effect to the intention that the regime would only apply to a small volume of high end specialised research activities while avoiding unnecessary and costly regulation for research and teaching in areas of relatively low risk. Building on two options initially prepared by the Department, the group then developed a third option which, in broad terms, appeared to satisfy the goal we shared. Our position, delivered to the Department at the conclusion of these discussions, is set out in correspondence at Attachment B.

Universities were surprised and disappointed that the options paper released for broader dissemination in June made it clear that the Department appeared to reject 'Option 3', proposing instead an alternative 'Option 4' that had not previously been discussed. The wider consultation was then limited to a very short timeframe (2 weeks), during which stakeholders were required to simultaneously assess the implications of

One Geils Court
Deakin ACT 2600

GPO Box 1142
Canberra ACT 2601
AUSTRALIA

Ph: +61 (0)2 6285 8104
Fax: +61 (0)2 6285 8101
Mobile: +61 (0)412 220 882

brobinson@universitiesaustralia.edu.au
www.universitiesaustralia.edu.au

the new option, and coordinate a response from a sector that was largely unfamiliar with the technical complexities involved.

Nevertheless, from our perspective, it was evident that the proposed new option had numerous shortcomings that would not achieve the objective sought. Universities Australia provided a formal response expressing our concerns about the new option and reiterating our preference for the core elements of 'Option 3' to form the basis of any solution. The details are set out in our submission (see Attachment C). Despite some advantages provided by exempting supply of intangible technologies within Australian borders, the sheer volume of international collaborative activity in a digital age means that Option 4 would, in practice, be little different, in practice, to the draft legislation currently before Parliament. More importantly, it fails to address the Bill's own stated objective to apply to a limited and small volume of high-end, specialist research. In doing so, it risks constraining low risk research of high public value, with few obvious benefits to national security.

Following the receipt of our submission in June, the Department sought a further meeting with universities to provide input on some matters which they regarded as implementation issues – particularly on draft definitions of exemptions for 'basic scientific research' and 'public domain'. However, by this stage members were reluctant to further engage given their experience to that point, and in particular, in the absence of any response to the concerns we had raised having been provided by the Department, or advice about the Department's preferred position. Our concerns were exacerbated by the Department's continued pursuit of a narrow exemption to cover only 'basic scientific research'; indications that the Department intends to introduce into the Bill controls over publications; and the risk of ill-considered and rushed advice in the remaining time available.

Subsequent informal communication between UA and the Department in mid-late July confirmed the new 'Option 4' as the Department's preferred approach. Moreover, the Department has informally indicated it considers that many of our objections can be overcome with appropriate attention being given to implementation.

We invited the Department to confirm and outline these matters in writing. While the Department initially undertook to do so, we have subsequently been advised that this would require Ministerial approval and will not, therefore, be provided in time to inform our response to the Committee.

In light of the above, Universities Australia's position remains as it is set out in our response to the Department's Options paper. Despite the informal assurances from the Department, it is our view there are many issues still unresolved or unaddressed. These are set out at Attachment D.

While we are disappointed with the current situation, we remain committed to an outcome that would achieve an appropriate balance between protecting national security and supporting our national interests by enabling Australia to be an effective contributor to the global research enterprise.

Notwithstanding, the disappointing progress from consultations since March it has been beneficial in many ways and it would be unfortunate if timing constraints prevented progress being made. Not only has the process enabled universities to gain a better understanding and a more nuanced appreciation of the complexity of the issues, it has also raised awareness among the wider research community of the Bill and its implications – awareness that was extremely low at the time of the initial consultations and Parliamentary hearings. We now understand that the concerns we have raised as a sector are shared by diverse research peak bodies and other stakeholders including the Australian Academy of Science (AAS), Australian Academy of Technological Sciences and Engineering (ATSE), Association of Australian Medical Research

Institutes (AAMRI), Australasian Research Management Society (ARMS), the Collaborative Research Centre (CRC) Association, Australian Research Council (ARC), the National Health and Medical Research Council (NHMRC) and various state governments.

It may be helpful for the Committee to also consider this matter in the light of the priority currently being given to the development, by the Australian Research Committee (ARCom) under the leadership of the Chief Scientist, Professor Ian Chubb, of a National Research Investment Plan (NRIP). The NRIP is designed to ensure that Australia has the best possible investment and policy settings to support collaboration in research and innovation, and drive the translation of research into practical outcomes for public and private benefit and meeting national and global challenges. As it stands, the current legislation and the proposed 'Option 4' would significantly impede this important national objective.

Given the growing awareness of the issues in the research community at a time when international collaboration in research is increasingly important to our national priorities, we strongly suggest that the Committee recommend more time be allocated to comprehensive consultation. In our view, Part 2 of the Bill dealing with controls of intangible supplies of DSGL technology should not be passed until agreement has been reached between the Government and the Australian public research community about the appropriate design and operation of the permit and control regime. That agreement can only be achieved through a transparent consultation process in which all stakeholders from the research community and other affected organisations are brought together.

In considering this, Universities Australia considers that the Chief Scientist, Professor Ian Chubb, is well-placed to assist in progressing the matter and has accepted an invitation to convene a roundtable of key stakeholders to discuss and resolve, if possible, the outstanding issues.

Universities Australia strongly supports the roundtable, an initiative that is consistent with our calls during the consultation process to move beyond the series of bilateral conversations that had characterised the Department's approach. A roundtable would enable the key stakeholders to hear the Department's proposal and reasoning and develop their own response in light of perspectives that extend beyond narrow sectoral interests.

The issues and risks associated with the operation of the proposed arrangements are serious and, while the university sector supports action to secure our national security, we cannot agree to support arrangements where there is no clarity on the extent to which genuine concerns have been addressed and where there are very real threats to building and maintaining international linkages and partnerships in research and innovation. We strongly urge the Committee to consider recommending that more time be given to address the outstanding issues before Part 2 of the Bill is passed to ensure a result consistent with all aspects of protecting the national interest.

Yours sincerely

Belinda Robinson
Chief Executive

UNIVERSITIES AUSTRALIA
DISCOVER LEARN LEAD

Our Ref: G-06-010

9 May 2012

Mr Michael Shoebridge
First Assistant Secretary, Strategic Policy
Department of Defence
Russell Offices
Russell ACT 2600
Michael.Shoebridge@defence.gov.au

Dear Mr Shoebridge

Defence Trade Controls Bill (2011) consultations

Thank you for providing Universities Australia with a revised Draft Options Paper following our meeting with you and your colleagues on 24 April 2012. I would like to thank you for the Department of Defence's collaborative approach to discussions with representatives of the university sector since the Senate Committee requested further consultative work be undertaken on the Defence Trade Controls Bill (2011). Universities Australia has been encouraged by the progress to date, and looks forward to continuing to work with your officers to ensure that, in their detail, the legislative and administrative mechanisms are capable of delivering Defence's policy intent of protecting Australia's national security interests and giving effect to its international obligations under the Wassenaar Agreement.

I attach a letter from Professor Trewhella to Universities Australia outlining the University of Sydney's response to the Draft Options Paper. On 2 May 2012, the positions and recommendations outlined in this letter were discussed and endorsed by those members of University Australia's working group who were also present at the 24 April meeting. As such, these recommendations constitute a consolidated position on the revised Draft of those university representatives that have been involved in the tight consultations to date.

Given the requirement for you to report to the Senate Committee on progress by 30 May, I can confirm that the position and recommendations outlined in the University of Sydney's letter accurately reflect the views of other university sector participants who have participated in consultations to date. I would stress, however, that as consultation outside this small group has not yet been possible, these views should not be construed as an agreed sectoral position. Rather, we consider them to be important for improving the Draft Options Paper further, and as a starting point to inform wider consultation on the Options throughout the sector.

One Geils Court
Deakin ACT 2600

GPO Box 1142
Canberra ACT 2601
AUSTRALIA

Ph: +61 (0)2 6285 8100
Fax: +61 (0)2 6285 8101

contact@universitiesaustralia.edu.au
www.universitiesaustralia.edu.au

To summarise our position to date, by broadening the *Scientific Research* definition to include *Applied Research* as defined by the ABS, and by applying the *Public Domain* and *Scientific Research* filters early in the evaluation process, Universities Australia considers that of the three Options in the revised Draft Paper, Option 3 most closely addresses the concerns that we and University of Sydney representatives have raised during the discussions.

In practical terms these improvements should mean that the vast bulk of university teaching and research activity will be exempt from the requirements of the legislation, and that only those institutions and researchers conducting experimental development research will need to familiarise themselves with the detail of the DSGL. These are significant improvements and we welcome Defence's willingness to consider them.

We remain concerned, however, that even within the subset of experimental development research activity that will remain controlled, there remains a substantial body of routine supplies involving lower risk DSGL technology that pose little or no risk to national security. Here we note the assurances that Defence has given during the discussions that the framework is intended to capture person-to-person transfers, not restrict research activity which is intended to result in the dissemination of findings through scholarly publication. Subjecting researchers involved in this type of activity to the requirements of the legislation can only serve to divert time and scarce resources away from controlling the body of supplies which we believe Defence should be most concerned.

We therefore support the University of Sydney's recommended adjustments to Option 3, which are designed to further target the control requirements on the body of supplies that pose the greatest potential risk to national security. Professor Trewhella and her research colleagues at the University of Sydney are essentially proposing that two additional filters are applied once it is determined that the supply relates to experimental development research involving *Sensitive* or *Standard* DSGL technology: for supplies to citizens of Wassenaar Agreement countries outside of Australian territory; and for supplies related to 'public good' research as demonstrated by the intention to publish. This would mean that except for supplies related to technology on the *Very Sensitive* and *Munitions* lists (where in all cases it is accepted that a permit should be required) only those researchers involved in a select subset of experimental development research would be required to deal with the DSGL and comply with the permit regime.

Subject to understanding Defence's position in response to the University of Sydney's specific proposed refinements and additions to Draft Option 3 and the other issues it raises, we would advise that Defence authorise Universities Australia to release a revised version of the Options Paper for wider consultation across the university sector and the research community more broadly, with the objective of allowing any remaining concerns to be identified and addressed before Defence puts a final position to the Minister for Defence and the Senate Foreign Affairs Defence and Trade Committee. Important stakeholders for future consultations will be Universities Australia's Pro and Deputy Vice-Chancellors Research Committee and the Society of University Lawyers (SOUL).

Given the nature of the issues and the restrictions placed on the consultation process to date, we believe that this wider consultation will be critical to achieving further improvements to the proposed control framework, as well as for broadening support and understanding of the reforms within the university sector.

In conducting such additional consultations, Universities Australia will provide relevant context on the significant progress that has been achieved to date, and make it clear to all participants that the exercise is exploratory in nature — not determinative of any final position that Defence may take.

I look forward to continuing our collaborative and constructive dialogue over coming weeks and months as we strive to develop a practical and workable solution to the issues raised by this important legislation.

Yours sincerely

Dr Pamela Kinnear
Deputy Chief Executive
Universities Australia

Professor Jill Trewhella
Deputy Vice-Chancellor (Research)

02 May 2012

Dr Pamela Kinnear
Deputy CEO
Universities Australia

By email: p.kinnear@universitiesaustralia.edu.au

Dear Pamela,

Defence Trade Controls Bill 2011 – Revised Principles and Options Paper

The University of Sydney participants in the 24 April 2012 Canberra meeting with the Department of Defence have discussed the revised Principles and Options Paper (**"the Paper")** circulated by Defence on Friday 27 April 2012, agreeing to the following formal University position. I trust that you will find this advice helpful as you seek to determine Universities Australia's position in relation to Defence's proposals.

Background and approach

From the beginning of the University of Sydney's engagement with this process we have recognised that there is a legitimate need for Australia to update its system of export controls. Our principal concern with the Bill and supporting proposals has been that they do not reflect Defence's intention that the controls would only apply to a very limited body of high-end and specialised research involving Defence Strategic Goods List (**"DSGL"**) technology. Poorly targeted requirements will likely waste resources through the creation of unnecessary administration, potentially impact Australia's innovation and competitiveness and undermine the policy intent of creating a culture of compliance. Moreover, we wish to ensure that any permit regime covering intangible supplies does not unnecessarily restrict educational and research activities in Australian universities and elsewhere such that Australia would be in a disadvantageous position compared with other participating Wassenaar states.

Our goal, therefore, has been to achieve appropriate recognition in the Bill and supporting regulations of the need to protect the vast bulk of academic activities, which pose no reasonable risk to national security. We have sought to do this in a way that recognises the fundamental connections between university teaching and research, and which imposes a compliance burden on institutions and researchers that is no more than necessary to protect legitimate national security interests.

Room 646, Jane Foss Russell Building
G02
The University of Sydney
NSW 2006 Australia

T +61 2 8627 8150
F +61 2 8627 8151
E jill.trewhella@sydney.edu.au
sydney.edu.au

ABN 15 211 513 464
CRICOS 00026A

We believe that Defence has approached the initial negotiations with Universities Australia and the University of Sydney in good faith and, that significant improvements have been achieved to the Bill and Regulations as originally proposed as a result of this dialogue. Through this consultative process, we have assessed the current proposed Defence position and produced a 'Preferred Option' that we believe both captures the intent of Defence as we understand it, and developed solutions that we believe could work well in the tertiary education sector. We describe the process leading to this, as well as details of this option below.

Subject to understanding Defence's position in response to our recommendations below, the University is happy to support the Paper being released for wider consultation to enable a Preferred Option to be agreed, and to allow any remaining concerns to be identified and addressed before Defence provides its response to the Senate Foreign Affairs Defence and Trade Committee. Indeed we see such broader consultation as now critical to achieving further improvements to the proposed control framework.

Agreed meeting outcomes

Our participants left the 24 April meeting with the understanding that Defence had agreed to consider developing an option, which would:

1. apply the *Public Domain* (definition to be agreed) and *Scientific Research* (pure basic, strategic basic and applied research as defined by the ABS **see Annex A**) filters early in a compliance procedure in order to minimise the number of people required to familiarise themselves with the broad DSGL;
2. apply additional filters for the fourth ABS definition of research (experimental development), relating to or incorporating DSGL technology to potentially exempt research intended for publication – which we interpret to be public-good research; and
3. produce a streamlined and clear process for compliance in order to avoid complexity and confusion about the treatment of different types of supplies in differing circumstances.

We further understood that Defence committed to:

- include in the Paper a principle recognising the need for Australian universities to remain internationally competitive in education and research;
- make the *Sensitive* and *Very Sensitive* sections of the DSGL clear, self-contained, and accessible to researchers without the need to reference the broader DSGL;
- work with the sector on the detail of the instrument and permit regime in order to ensure that the framework is as efficient, flexible and effective as possible in achieving the policy objectives;

- place the responsibility for compliance with technical experts best able to evaluate risk and understand the technologies listed in the DSGL, accepting the need for development of a 'certification' regime at the local level; and
- work with the sector to develop educational material including a Code of Practice.

In addition to the above, we raised with Defence our general concern that it needs to consider more targeted controls for supplies of DSGL technology in the course of experimental development research. For example, we raised the idea of an additional exemption, or automatic permit regime, for supplies of technologies that occur when undertaking experimental development research that is publicly funded by government bodies, including research funded by Defence itself. Defence noted that it had difficulties in accepting these options. Possible solutions to this issue are addressed below under **'Recommended further changes to the Paper'.**

Assessing Defence's revised Paper

Defence's proposed Option 3 applies three high level filters early in the compliance/evaluation process (supply to a foreign person, public domain and scientific research). This is consistent with the approach recommended by our researchers at the meeting and we believe the introductory wording for this Option accurately reflects the rationale for the approach that was agreed with Defence. Depending on the ultimate drafting of the Bill and Regulations, the treatment of university educational services may be an issue we need to clarify further with Defence.

We believe that adoption of Option 3 would deliver the following significant improvements to the Bill and supporting Regulations as originally proposed:

1. all supplies of DSGL technology which are in the *Public Domain* are exempt. The definition of *Public Domain* will be referred to in the legislation and defined in detail in the Regulation; and
2. all supplies of DSGL technology that occur in the course of *Scientific Research* are exempt. The broadening of the definition from the originally proposed exemption of 'basic scientific research' is a much welcomed improvement.

Additionally, we note that one of the primary offences for the provision of 'defence services' in the primary Bill (s.10 (2)) has been removed. Rather 'defence services' will now be controlled by reference to DSGL 'technology' controls as they appears in the DSGL. Defence believes that this has greatly reduced the ambit of controls on those services. Defence has also confirmed that most offences under the Bill will not be strict liability offences.

We believe that the combined effect of the *Public Domain* and the broadened *Scientific Research* exemptions will go a long way towards limiting the impact of the legislation on universities and academic staff. In this regard it is useful to note that notwithstanding the limitations of the available data on the breakdown of higher education research activity, the latest available ABS data show that the sector's expenditure on pure basic, strategic basic and applied research accounted for 91% of all research expenditure with expenditure on experimental development representing the remaining 9%. Nevertheless, we recognise that in some institutions and disciplines the level of experimental development research relating to or incorporating DSGL technology is high. It is therefore critical that additional appropriate filters such as recommended below are applied to further focus the controls on the body of research that is most likely to pose a potential threat to national security.

Recommended further changes to the Paper

As a matter of specific concern, in recognition of a core principle of our position, we recommend that the following text is substituted for the new Principle 4 on page 1 of the Paper: '*Universities need to be internationally competitive in education and research*.'

Moving to a broader area of concern, we agree with Defence that a permit application should be required in all cases where the supply relates to DSGL technology that is not already in the public domain, not related to scientific research, but is included on either the DSGL *Very Sensitive* or *Munitions* lists. For supplies related to experimental development research about *Sensitive* and other DSGL technology, however, we recommend that consideration be given to adding the following two filters to further target the controls on supplies that pose the greatest potential risk.

1. In addition to the more lenient treatment proposed in Option 3 for intangible supplies to foreigners within Australian territory, we recommend that a filter be added, which allows the supply of DSGL technology outside of Australia without a permit, so long as the supply is to a citizens of a country that is a signatory to the Wassenaar Agreement (or failing that to a Wassenaar country that Defence is satisfied has, or is in the process of, implementing the requirements of the agreement).

2. If the supply is to a foreign person outside Australia who is not a citizen of a Wassenaar Agreement country, but relates to research intended to contribute to the public good through the expansion of knowledge ***as evidenced by the intention to publish***, then we recommend that no permit should be required. We make this recommendation with reference to the assurances given by Defence that the Bill is intended to capture person-to-person transfers, and not to restrict the publication of research outcomes or methods. The addition of this filter would have the effect of focusing the control regime on people who do not intend to publish, but do

intend to transfer information about DSGL technology offshore to people from non-Wassenaar states.

Combined with the capturing of supplies of technology on the *Very Sensitive* and *Munitions* lists, we believe that the inclusion of these two additional filters would serve to focus available resources on protecting the body of supplies that Defence should be most concerned about controlling, and would maximise compliance by eliminating the burden of evaluating the comprehensive DSGL in all but a select set of circumstances that have little overlap with the practices of the University/Tertiary Education sector. The flowchart included as **Annex B** summarises the additional filtering steps that we believe need to be discussed with Defence with a view to further simplifying and focusing the control requirements.

We would be happy to work with Universities Australia, Defence and the broader research community to resolve these matters, and to provide Defence with case studies of the type of supplies that we believe should be exempt from the permit requirements because of the public interest nature of the research to which they relate.

Given the nature of the issues and the very tight timeframe that Defence is working with to resolve them, we believe that it will remain critical for Universities Australia and the University of Sydney to continue to work closely with Defence, the broader research community and other relevant, collaborative sectors as the policy process continues.

Yours sincerely,

Professor Jill Trewhella
Deputy Vice-Chancellor (Research)

Annex A

Australian and New Zealand Research Classifications

Experimental Development Research means: systematic work, using existing knowledge gained from research or practical experience, which is directed to producing new materials, products, devices, policies, behaviours or outlook; to installing new processes, systems and services; or to improving substantially those already produced or installed.

Public Domain means: the definition is yet to be finalised with Defence, but Defence has indicated a willingness to obtain our views about its construction in any legislative instrument.

Scientific Research means**:**

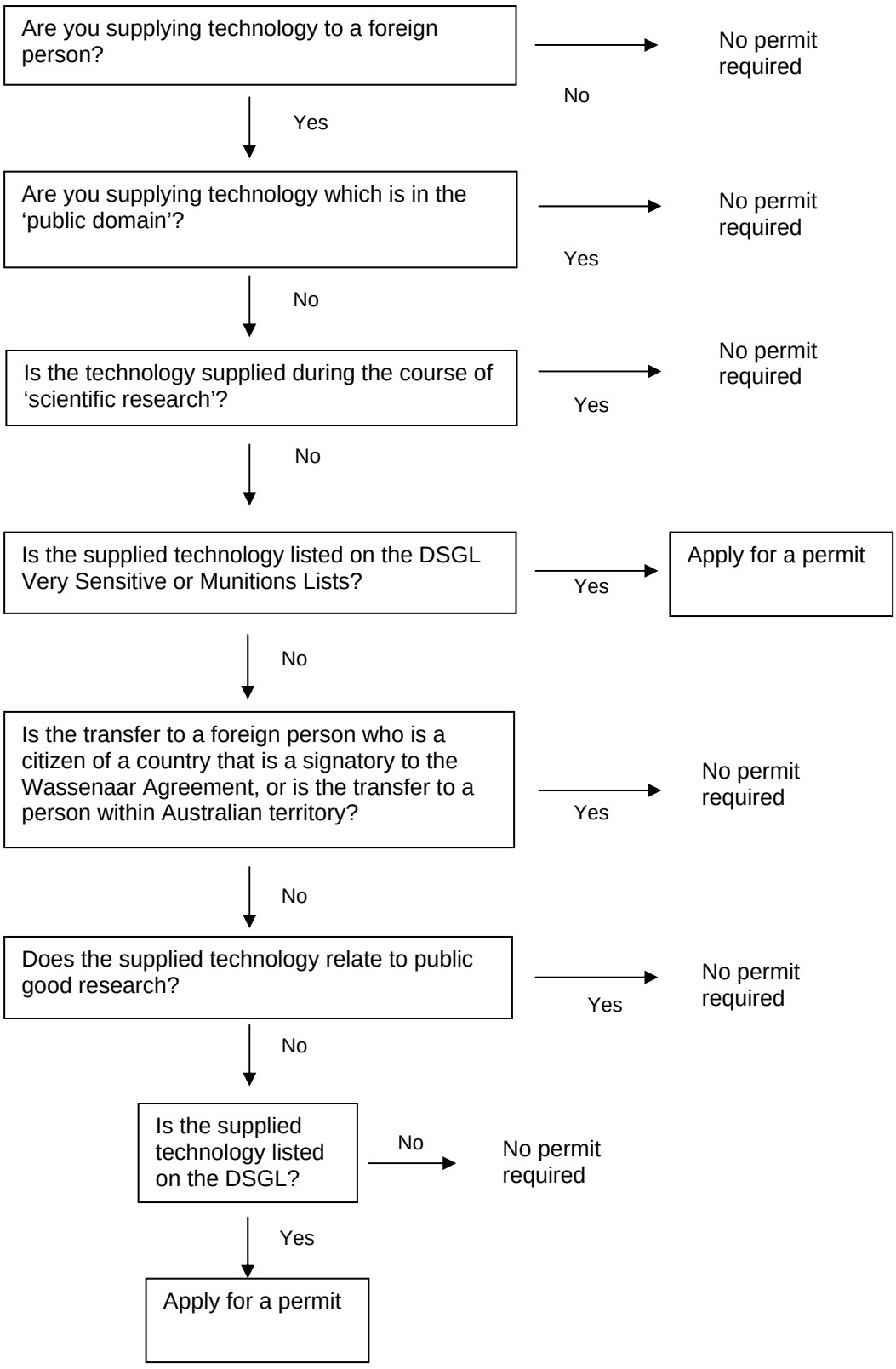
- **Pure basic research**: experimental and theoretical work undertaken to acquire new knowledge without looking for long term benefits other than the advancement of knowledge; and
- **Strategic basic research**: experimental and theoretical work undertaken to acquire new knowledge directed into specified broad areas in the expectation of useful discoveries. It provides the broad base of knowledge for the solution of recognised practical problems; and
- **Applied research**: original work undertaken primarily to acquire new knowledge with a specific application in view. It is undertaken either to determine possible uses for the findings of basic research or to determine new methods or ways of achieving some specific and predetermined objectives.

Defence Strategic Goods Lists of Sensitive and Very Sensitive Technology

Sensitive DSGL Technology means: technology listed on the **Sensitive** and **Very Sensitive** Lists of Dual-use Goods and Technology of DSGL (pages 253 to 274), and the Munitions List 22 (page 51) (specific military weapons and associated equipment agreed to be controlled under the Wassenaar Arrangement).

ANNEX B

Sydney Preferred Compliance and Control Framework for Option 3



UNIVERSITIES AUSTRALIA
DISCOVER LEARN LEAD

Our Ref: G-06-010

22 June 2012

Mr Michael Shoebridge
First Assistant Secretary, Strategic Policy
Department of Defence
Russell Offices
Russell ACT 2600
Michael.Shoebridge@defence.gov.au

Dear Mr Shoebridge

Universities Australia Response to Defence Trade Controls Options Paper

Thank you for providing an opportunity to comment on the latest draft options paper on *Principles and Options for Strengthened Exports Controls.* Universities Australia has appreciated the opportunity over recent months to work in collaboration with the Department of Defence, exploring options to give effect to the objectives of the Wassenaar Arrangements endorsed by Australia along with 40 other nations.

I reiterate Universities Australia's recognition of the important role that universities do, and should, play in supporting national security priorities and the need to update existing export controls arrangements to take account of 'intangible' transfers in a digital age. From the outset, our concern has been to ensure that any legislation to address this gap strikes an appropriate balance between national security priorities and the free pursuit of teaching and research. Universities Australia has always sought to identify a solution that would narrow the scope of the draft legislation to deliver on its stated intent, that is, to limit controls to high end, specialised research activities. In doing so, this would avoid unnecessary regulatory burden and unworkable compliance obligations that would place significant constraints on Australian research and innovation.

Universities Australia has sought the views of our members on the draft options set out in the consultation paper, particularly the new 'Option 4' which had not been explored during our earlier discussions. Mindful that our broadly preferred 'Option 3' was always only ever envisaged as a starting point for wider consultation, Universities Australia could consider variations on the details. We are, however, deeply committed to the foundational principles and core elements of this option, detailed in the attached submission. In our view these principles and elements are essential to achieve the objective, stated in the explanatory documents attached to the draft legislation, of limiting the permit regime to specialised, high-end research in order to protect areas of greatest concern to national security.

Our analysis of Option 4 is that it is inconsistent with these principles and elements and does not meet the stated objective. On the contrary, it will leave a very considerable proportion of relatively low-risk university activities subject to the full range of permit controls. In practice, its effect would be little different to the draft legislation currently before Parliament.

One Geils Court
Deakin ACT 2600

GPO Box 1142
Canberra ACT 2601
AUSTRALIA

Ph: +61 (0)2 6285 8100
Fax: +61 (0)2 6285 8101

contact@universitiesaustralia.edu.au
www.universitiesaustralia.edu.au

On this basis, Universities Australia considers there is still much to be done to identify a solution that strikes an appropriate balance between legitimate national security concerns, and the need to ensure that Australia retains an internationally competitive education and research system. Until a balanced and workable solution can be found, however, Universities Australia cannot support the passage of the Bill through the Parliament.

We therefore recommend that you reconsider the core elements of 'Option 3' in developing a workable approach, including any alternatives to a 'permit and control' regime that might be possible to ensure an effective solution. Not only would this serve Australia's interests in a challenging and competitive global environment, but it would also mean that we take the opportunity to build international best practice in this difficult area of national security regulation.

Yours sincerely

Belinda Robinson
Chief Executive

UNIVERSITIES AUSTRALIA

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Response to 'Principles and Options for Strengthened Export Controls' paper – Department of Defence

June 2012

Further inquiries should be made to the Chief Executive Officer:

GPO Box 1142
CANBERRA ACT 2601
Ph: +61 2 6285 8100
Fax: +61 2 6285 8101
Email: contact@universitiesaustralia.edu.au
Web: www.universitiesaustralia.edu.au
ABN: 53 008 502 930

Introduction

Universities Australia has appreciated the opportunity over recent months to work in collaboration with the Department of Defence to explore options to support Australia's efforts to give effect to the objectives of the Wassenaar Arrangement endorsed by Australia along with 40 other nations.

Since the paper *Principles and Options for Strengthened Export Controls* was released in early June, giving rise to an opportunity for broader consultation, Universities Australia has sought the views of our members on the options therein. The key messages elicited from this consultation are that:

- Whilst the domestic exemptions offered by Option 4 are welcome in principle, the wide application of controls to activities outside Australia, and the tightening of the 'scientific research' filter to exclude applied research, makes the option unworkable, and would impose a substantial and unnecessary compliance burden on the sector. It would also be difficult, if not impossible, to comply with.
- A solution along the lines of 'Option 3' is broadly supported as more consistent with principles of proportionate regulation and with the stated intent of the legislation, as well as being more feasible from a compliance point of view.

These points are spelled out in more detail below and cover, in broad terms, the issues raised with Universities Australia by our members. The submission also attaches the response from the University of Sydney which updates Professor Trewhella's letter of 8 June to all stakeholders which we understand the Department of Defence has also received. The University of Sydney has played a lead role in this matter and is well-versed in the technical and practical details of the issues at hand. With University Australia's support, the University of Sydney tested its views more broadly amongst our members and those of non-university research organisations. UA members strongly support Sydney's analysis, and non-university research organisations[1] have also indicated support for this analysis.

Before turning to the analysis of the options paper and Option 4 in particular, it is worth reiterating the objective we were seeking to achieve in our discussions with the Department to date, and the points of principle and core elements that were discussed as the essential underpinnings of any successful solution.

Objectives and core principles

From the beginning of the university sector's involvement in this issue, both UA and the University of Sydney have supported the broad objective to update export controls to better support national security. Our core concern has been to narrow the scope of the otherwise widely drafted legislation to be consistent with the goal stated in the Explanatory Memorandum. This is that the controls should impose minimal administrative and compliance burdens on universities since they would only be expected to apply to 'very specialised and high-end research' conducted by academic institutions.

Early discussions with the Department following our representations to the Senate Committee indicated we shared the goal of achieving an appropriate balance between preventing the misuse of sensitive technology in the interests of national security, and allowing Australian university education and research to prosper. Those discussions noted that a poorly targeted regime would not only

[1] including Australian Academy of Technological Sciences and Engineering (ATSE), Australian Academy of Science (AAS), Science and Technology Australia (STA) and Association of Australian Medical Research Institutes (AAMRI)

impose an unnecessary regulatory burden on universities, but would also be difficult for Government to administer and enforce.

At the request of the Senate Committee, UA set out to explore, together with the University of Sydney and in collaboration with the Department, the parameters of an appropriately targeted permit regime capable of identifying those activities of greatest concern from a national security perspective, and a suite of 'filters' to exempt lower-risk activities. This approach is consistent with the stated purpose adopted by the Wassenaar Plenary that the Arrangements should address security threats which "*may arise from transfers of armaments and sensitive dual use goods and technologies where the risks are judged greatest*".[2]

To deliver on this objective the group explored mechanisms that would enable us to:

- identify research activities that were most likely to be engaged in the 'production', 'manufacture' or 'use' of goods and technologies on the DSGL; and
- identify goods and technologies on the DSGL of greatest concern.

Other key elements were considered important to maximising compliance and minimising unnecessary burdens. These included requirements for the model to:

- apply the most expansive filters as early as possible in the process of assessing the need for a permit application;
- ensure risk assessment is conducted by those most capable of making such assessments in highly technical scientific projects; and
- be readily understandable by those who might be required to comply.

These core elements contributed to shaping the eventual 'Option 3', UA's preferred option as stated in our letter of 9 May, with some suggested modifications designed to simplify and further focus the framework on the highest risk activities and research projects. The letter also indicated that the option was a starting point only, and that we expected further modifications to arise during a broader consultation period.

The current Options Paper has now identified some concerns with the proposed Option 3. These concerns go to the effectiveness of the ABS research classifications as a filter given the dynamic nature of research activities, and its lack of alignment with current Australian export controls regimes, as well as the regimes in place for the control of intangibles in operation in the United Kingdom and the USA. On the basis of such concerns, the paper has proposed a new option ('Option 4').

Mindful that Option 3 was designed to serve as a starting point only for a wider consultative process, it is important to stress that Universities Australia is not wedded to its particular details (or, indeed, any option). What we are committed to, however, are the core elements that must underpin whatever model is finally agreed. We are looking for a design that includes filters and mechanisms capable of:

- giving effect to the stated goal of limiting the application of controls to specialised, high-end research activities;
- focusing on activities considered to present a high risk to national security, whilst exempting lower risk, high value research activities that form the bulk of Australia's scientific research and innovation efforts;

[2] Wassenaar Arrangement on Export Controls for Conventional Arms and Dual-Use Goods and Technologies, *Guidelines & Procedures, including the Initial Elements,* December 2011, item 2 of I 'Purpose'

- maximising compliance by being as transparent and clear as possible about what is controlled; who may be required to comply and how such an assessment might be made; and
- supporting Australia's competitiveness in international research.

Assessment of Option 4

Universities Australia considers that Option 4 would fail to meet the criteria outlined above, regardless of the otherwise welcome exemptions for supplies of controlled DSGL technologies to foreign persons inside Australia's borders. The most fundamental problems with Option 4 arise from the distinction between activities that take place 'inside' and 'outside' Australia, and the tightening of the 'scientific research' filter to exclude applied research. These features mean that in practice, Option 4 is likely to leave a very considerable proportion of university activities subject to the full range of permit controls.

International collaborative research

Modern research is, by nature collaborative and, in an increasingly globalised environment, international collaboration is rapidly increasing, supported by deliberate government-initiated policy settings. As the *Health of Australian Science* report noted, "Growth in internationally collaborative publications is a major source of growth in Australian research publication outputs. Whereas overall publications approximately doubled between 2002–2010, internationally co-authored publications more than tripled"[3] (p167).

As a geographically distant small nation and contributor to the global research effort, Australia's global competitiveness relies heavily on being connected to the international research community. Australia is more reliant than larger countries on our researchers being connected by way of intangible transfers of technology of the type the Wassenaar Arrangement seeks to control. Indeed, most core research activities of benefit to the public will involve communication to, and with, those located outside Australia. Moreover, many of these will involve DSGL technologies.

In addition to this, in a highly interconnected, digital age, the distinction between activities 'inside' and 'outside' of physical and geographic borders is largely artificial. The proposed Option 4 provides no clarity (and no obvious easy way to clarify) what constitutes activity 'inside' and 'outside' of Australia. Emails, 'open' collaboration tools (for example, cloud computing and wikis), various forms of social media, webinars, and discussion blogs, Youtube/e-university lectures and so on, all defy any concept of 'national' borders.

In essence, by applying very widely outside Australia's borders, and by exempting only basic scientific research from the permit regime, Option 4 would, in practice, look little different to the draft legislation currently before Parliament and would fail the test of limiting the permit regime to specialised, high-end research. The requirement to consider, at every point of communication in the ordinary course of collaborative scientific research, the question of whether such communications may require a permit is simply unworkable for the university research community.

Alignment with other countries

The Options paper argues that a key advantage of Option 4 is that it mirrors the regime in place in the United Kingdom and is similar to many aspects of the regime in the United States.

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[3] *Health of Australian Science*. Office of the Chief Scientist 2012, Australian Government, Canberra.

We concur that, on the face of it, Option 4 mirrors the system in the United Kingdom, with some important qualifications as to practical effect. The paper itself, however, is ambiguous about how the UK system actually operates – referring both to exemptions inside the UK and the UK/EU. Our understanding is that the borders for free transfers of technologies for the UK are drawn at the EU, not national level. The importance of this for Australia is that the UK's arrangements allow much more in the way of international collaboration than a replica system in Australia would allow. This would be inconsistent with the principle that the model should not put Australia at a competitive disadvantage.

Moreover, it is far from clear that the UK system is effective or practicable for universities. UA maintains our position that any Australian legislation should enshrine the concept of academic freedom, as the UK has done. However, the actual operation of the regime is less encouraging, despite the considerable effort expended by the UK academic community and successive governments in seeking to make it workable. Indeed, it is increasingly apparent that the UK has experienced a long and apparently unsuccessful struggle to increase awareness and compliance amongst the academic community.[4] It seems probable, therefore, that the low volume of permit applications in the UK referred to in the Explanatory Memorandum (p. 21), rather than demonstrating the success of an effective regulatory regime, is in fact evidence of low awareness and high non-compliance.

Recent developments in the US also indicate that there are considerable difficulties with effectively implementing these sorts of regulatory regimes. We have reported in our previous submissions to the Senate Committee of some of the difficulties being experienced by US academics. Efforts are now being made to address difficulties in the supply of intangible in relation to dual use pathogens and toxins that are commonly used in, or the subject of, critical life sciences. For example, in March this year, the US released a whole-of-government *Policy for Oversight of Life Sciences Dual Use Research of Concern*[5] that takes a risk minimisation approach to unclassified, publicly funded research. It incorporates a defined list of the most dangerous substances and establishes responsibilities, principles and guidelines for funding agencies, research organisations and researchers. Further, a recent report published by the US National Academies entitled *Export Control Challenges Associated with Securing the Homeland*[6] found that the implementation of U.S. export control laws and regulations and related administrative processes prevent the Department of Homeland Security from accomplishing some of its missions effectively and, in some cases, deny the United States access to the best technology to protect its citizens.

In the face of these issues, Universities Australia considers that the first priority should be to develop a system that works for Australian research, rather than seeking perceived consistency with unworkable international precedents or alignment with existing controls for tangible transfers. It is therefore important to note that as a voluntary, rather than legally binding arrangement, the Wassenaar Arrangement does not anticipate consistency of regimes. Rather, the guidelines suggest they be implemented 'on the basis of national discretion' in accordance with 'national legislation and policies'. While we believe it is important not to 'reinvent the wheel' if successful schemes are operating

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[4] See, for example, the *Report of the House of Commons Defence, Foreign Affairs, International Development and Trade and Industry Committees Strategic Export Controls: 2007 Review* First Joint Report of Session 2006–07 http://www.publications.parliament.uk/pa/cm200607/cmselect/cmquad/cmquad.htm

[5] 'US agencies to start Screening biomedical proposals for dual use', *Science* vol. 336 6 April 2012 www.sciencemag.org.

[6] *'Export Control Challenges Associated with Securing the Homeland'* Committee on Homeland Security and Export Controls; Development, Security, and Cooperation; Policy and Global Affairs; National Research Council

elsewhere, it is equally important to use the opportunity to address the failings of other schemes. It is also important that a high quality solution for Australia is not compromised in pursuing a uniformity that was not anticipated or expected under these arrangements, especially when faced with evidence that the arrangements in 'model' states appear to be failing to delivery on their policy objectives.

Universities Australia recommends that serious consideration be given to developing more effective approaches for managing these complex activities and risks than a 'permit and control' regime can provide. Alternative, approaches that focus on risk minimisation, communication and awareness raising may be more suitable, and effective tools for the control of intangible transfers of dual-use technologies.

A range of other concerns arising from the Options paper are outlined in detail in Attachment A and have been made to us directly from other members. These include:

- the remaining uncertainty regarding the definitions of key terms for exemptions such as 'basic scientific research' and 'public domain'. We note that the Department of Defence is continuing to work on these definitions and decisions about the details or their place inside or outside the primary legislation have yet to be made. A key dilemma we discussed with the Department that remains unresolved is whether the definition of 'supply' includes publications – noting the circularity that publication, by definition, is dealing with and producing information not yet in the public domain;
- the inability of Defence assessors to adequately assess risk in any technology transfers associated with highly technical scientific matters and the need to consider a self-certification process instead;
- how to capture the dynamic, iterative and serendipitous of the research process;
- the need for significant resources to the Department and for universities to support training and awareness-raising including the development of guidelines; advice on establishing internal compliance frameworks; and
- the need for a transition period to support the development of compliance mechanisms.

We would urge the Department to address such matters in finalising its proposals for the legislation.

Conclusion

Universities Australia considers there is still much to be done to identify a solution that strikes an appropriate balance between legitimate national security concerns, and the need to ensure that Australia retains an internationally competitive education and research system. Universities Australia commends for the Department's further consideration either how the core elements that underpin the existing 'Option 3' could be made workable, or what alternative approaches – regulatory or otherwise – might be possible to ensure an effective solution.

Not only would this serve Australia's interests in a challenging and competitive global environment, but it would also mean that we take the opportunity to build international best practice in this difficult area of national security regulation.

Jill Trewhella
Deputy Vice-Chancellor (Research)

8 June 2012

Dear Colleague

Defence Trade Controls Bill Revised Principles and Options Paper

I understand that you have recently received from the Department of Defence a *Principles and Options Paper* relating to the implementation of the *Defence Trade Controls Bill 2011 (Cth)* ("**The Bill**"). As you may be aware, together with Universities Australia and at the request of the Senate Foreign Affairs, Defence and Trade (FADT) Committee, the University of Sydney has been in discussions with the Department of Defence since March, to find workable solutions to a range of issues that were aired before the Committee in submissions and hearings about the Bill in January and March this year.

Our close involvement in this policy process stems from the fact that the University was one of the eleven organisations that made submissions to the FADT Committee's Inquiry in January. As a result of that input I appeared before the Committee with a group of our researchers on 21 March and have remained engaged with the process since.

At Defence's request our discussions to date have been held in confidence. Understanding that the Defence's Paper has now been circulated widely, with many other stakeholders asked to provide comment by 15 June, I thought it important that I write to you now to provide background and context, as well as to share our view of Defence's position as you make your assessment of the legislation and the relative merits of the various options for implementation set out in the Paper.

As you are aware, the Bill seeks to augment existing Australian export-control law by extending controls to *intangible* transfers, including informal communications between Australians and foreigners. In our evidence to the FADT Committee we raised objections to the potential unintended consequences of the Bill in suppressing a wide variety of research activities in Australian universities, and have since engaged with Defence with the objective of producing a draft framework for amending the Bill and preparing the supporting instruments.

Room 646, Jane Foss Russell Building
G02
The University of Sydney
NSW 2006 Australia

T +61 2 8627 8150
F +61 2 8627 8151
E jill.trewhella@sydney.edu.au
sydney.edu.au

ABN 15 211 513 464
CRICOS 00026A

The current Defence Paper has arisen from those discussions and others that Defence has conducted in parallel, but in our opinion the Paper fails to address the serious concerns we have raised. We emphasise our concern that the proposed controls that now appear to be favoured by Defence will impose substantial administrative and compliance burdens for our researchers and relate to technologies frequently encountered in world-class experimental research activities across a wide variety of disciplines – these are not exotic weapons technologies, but rather so-called *dual-use* technologies.

You will find attached background and context of the Bill and the policy development process; a summary of the University of Sydney's perspective on the Bill and the approach we have taken to our engagement with the process; our assessment of the Defence Paper released for consultation on 4 June 2012; and a preferred compliance and control framework, which we put to Defence through Universities Australia in early May based on our discussions and review of earlier versions of the Paper, as well as feedback from Defence.

We are sharing this information with you in order to initiate a broader dialogue across the Australian research community about the potential creation of a costly and unnecessary regulatory regime that in our assessment fails in its goal of producing new safeguards, and would put Australian researchers at a significant competitive disadvantage by restricting the routine communication with foreigners upon which their research depends.

As we now look to prepare the University's response to Defence's Paper, and contribute to the preparation of Universities Australia's submission, I would welcome your early advice in writing or by phone as to the extent to which you share or disagree with our analysis of the issues and the solutions we have proposed with Universities Australia.

We hope that we can work together to impress upon the Government the need for amendment of this legislation, and move forward in both protecting national security and fostering our innovative research enterprise.

I am currently scheduled to be in Canberra on Tuesday 19 June, and would be happy to make arrangements to meet with you on or around that day, perhaps together with other interested stakeholders, if that was seen as worthwhile.

Yours sincerely

(signature removed for electronic distribution)

Professor Jill Trewhella
Deputy Vice-Chancellor (Research)

Attachments

Attachment A	Background and context to the Defence Trade Controls Bill 2011
Attachment B	The perspective and approach of the University of Sydney and its researchers
Attachment C1	University of Sydney assessment of the *Defence Principles and Options Paper* of 4 June 2012
Attachment C2	University of Sydney Preferred Compliance and Control Framework

THE UNIVERSITY OF SYDNEY

Attachment A

Background and context to the *Defence Trade Controls Bill 2011 (Cth)*

In January 2012 the University of Sydney became aware of the *Defence Trade Controls Bill 2011 ("**The Bill**")*, which had been introduced to Federal Parliament in November 2011. Customs law already places controls on the physical supply to foreigners of specific munitions and *dual-use* technologies, the distribution of which is considered to pose a risk to national security. These technologies appear on an expansive list called the *Defence Strategic Goods List* (DSGL), and range from conventional munitions technologies to research-grade lasers and even elements of the periodic table.[1]

Advances in communication technology mean that it is now well accepted that the supply not only of these *tangible* goods and technologies, but also of *information* relating to them can pose a threat to national security. Australia and 40 other countries have entered into an agreement known as "*The Wassenaar Arrangement*", which seeks to strengthen the integrity of their export control regimes through the introduction of clear and precise controls over *intangible* transfers of *dual use* and conventional weapons technology.[2] The Bill was designed to introduce a framework that would give effect to commitments the Australia Government has made under the Wassenaar Arrangement.

From a University perspective, the fundamental reform contained in the Bill was the proposal to expand Australia's existing controls over *tangible exports* (e.g. the physical shipment offshore of a controlled good), such that *intangible transfers of technology* would also be covered. The definition of intangible transfers of technology and some of the explanations for the application of those controls in the university sector, as provided in the Explanatory Memorandum to the Bill, would expand the range of controls to include a variety of activities relating to controlled DSGL technology that could be caught in the context of our ordinary education and research activities. For example, email communications, potentially publication and presentation at conferences, oral discussion of controlled technologies in a particular experiment or research project with foreign PhD students or collaborators, and calibration of experimental hardware, would all be subject to the proposed permit and control regime.

The breadth and specificity of the controlled technologies described in the DSGL meant that many areas of research had overlap or potential exposure to be impacted, and would require the implementation of new and potentially damaging controls. The effects of controlling intangible transfers to foreigners, if fully implemented as proposed, could have had the effect of stifling innovative research activities, potentially limiting publication activities, and damaging the ability of foreign students and staff to engage in a broad range of non-defence experimental research. Additionally, a proposed permitting regime gave Defence significant authority to assess the suitability of an expansive range of research activities.

In our assessment, this would have placed a large compliance and administrative burden on any researchers who use goods and technologies during the course of their research, mandating review of the DSGL, and application of multiple permits as appropriate (the full DSGL is 380 pages, saturated with arcane legal language, technical definitions and multiple cross-references). Penalties for noncompliance as drafted were criminal, and severe.

[1] Defence Strategic Goods List (DSGL): http://www.defence.gov.au/strategy/deco/dsgl.htm
[2] The Wassenaar Arrangement 2006: http://www.wassenaar.org/introduction/index.html

Based on our early assessment of the proposed reforms we made a brief submission to the Senate Foreign Affairs, Defence and Trade (FADT) Committee Inquiry into the provisions of the Bill in January 2012. Defence was at the time concluding its drafting and policy development activities, and consulting primarily with industrial partners. The University of Sydney and Universities Australia were among just eleven organisations to make submissions to the Inquiry at that time. It subsequently became apparent that the Bill had been introduced to Parliament, and indeed had passed the House of Representatives, without any meaningful consultation occurring with the higher education sector.

This submission was followed by direct engagement in consultations with both the FADT Committee and the Department of Defence. Partly as a result of concerns arising from the evidence given to the FADT Committee by Universities Australia and Sydney in March, the Committee sought and obtained from the Senate a four month extension to its reporting date, taking the deadline to 15 August 2012. Since our appearance before the FADT Committee on 21 March, at the Committee's request, we have worked constructively with Universities Australia and Defence to understand the intention of the legislation, explain the perspective of our academics engaged in cutting-edge experimental research, and work towards reasonable policy solutions that maximise efficacy while minimising administrative burdens on researchers.

Following discussions with Defence and Universities Australia on 24 April we provided detailed comments on an early draft of *Defence's Principles and Options Paper*, which at that point included three options. **Option 3** was specifically added to the draft paper by Defence following discussions with Universities Australia and the University of Sydney about the deficiencies of **Options 1** and **2**. In a letter dated 2 May we discussed the strengths of **Option 3** and recommended further refinements, the acceptance of which we believed would have brought **Option 3** more closely into alignment with the underlying policy intent, as well as the design principles we thought had been agreed by Defence at that point. This included the suggestion of additional "filter" mechanisms designed to exempt from control a set of low-risk research activities.

Up to that point in the negotiations we felt that our discussions with Defence had been productive and that good progress was being made towards achieving a mutually agreeable outcome that struck the right balance between legitimate national security and research interests. We were, however, deeply disappointed with the content of a revised *Principles and Options Paper* received from Defence on 4 June 2012, and in particular with a new fourth option that had been added to the paper.

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Attachment B

The perspective and approach of the University of Sydney and its researchers

From the beginning of the University's engagement with this process we have recognised that there is a legitimate need for Australia to modernise its system of export controls. Indeed, as a party to the Wassenaar Agreement, we are obliged to do so. Our principal concern with the Bill and supporting proposals has been that they do not reflect Defence's intention that the controls would only apply to a very limited body of research involving Defence Strategic Goods List (**"DSGL"**) technology: *"Defence anticipates that these controls will apply only to very specialised and high-end research conducted by these entities." (Explanatory Memorandum, p.21).*

It is our assessment that poorly targeted requirements will serve to waste resources through the creation of unnecessary administration, potentially impact Australia's capacity for innovation, and undermine the policy intent of creating a culture of compliance.

Moreover, we wish to ensure that any permit regime covering intangible supplies does not unnecessarily restrict academic activities such that Australia would be in a disadvantageous position in education and research compared with other participating Wassenaar states.

Our goal, therefore, has been to achieve appropriate recognition in the Bill and supporting instruments of the need to protect the vast bulk of academic activities, which pose no reasonable risk to national security. We have sought to do this in a way that recognises the fundamental connections between university teaching and research, and which imposes a compliance burden on institutions and researchers that is no more than necessary to protect legitimate national security interests. Further, we have provided a best effort in realising amendments to the Bill and supporting regulations that would address the likely concerns of the research and innovation sector more broadly.

This has occurred through discussions, in-person meetings, and contribution to the development of several "Principles" and "Options" working papers designed to capture the concerns of the research community and propose amendment to the legislation that accommodated the needs of Defence and the research sector.[3] Key positions communicated to Defence include the needs to:

- avoid unintended misapplication of the permit regime to routine, low-risk education and research activities
- recognise the fundamental role of foreign persons and foreign communications in the context of Australian research
- communicate the breadth and depth of the DSGL and the strong overlap of so-called *dual-use* DSGL goods with cutting-edge research activities
- communicate the nature of world-class experimental research, and the fact that it has limited overlap with proposed exemptions for "basic scientific research"
- minimise compliance burdens by applying high-level "filters" in the legislation, extending pre-existing exemptions for basic research
- place the responsibility for assessing risk with local experts, and imbue a culture of compliance that is needed to provide maximum benefit.

[3] We note that discussions were restricted to representatives of the Universities Australia Secretariat and the University of Sydney, and kept confidential at the explicit request of Defence.

While we are disappointed by the direction indicated by the proposals that have been added to the *Principles and Options Paper* recently, we remain committed to working with Defence to find solutions that meet the aims of improving national security by maximising the likelihood of compliance while minimising negative impacts on Australia's research and innovation enterprise. We are hopeful that through discussions with the broader University and research communities we will be able to find reasonable solutions for all involved.

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Attachment C1

University of Sydney Assessment of the Defence *Principles and Options Paper* of 4 June 2012

The *Principles and Options Paper ("**The Paper**")* dated 4 June follows our last round of discussions with Defence held on 24 April. The University of Sydney believes that the new positions taken by Defence in the Paper, and in particular the proposed new "**Option 4**" represents a substantial step backwards relative to the progress made in earlier discussions.

In summary, we are unable to support Defence's proposed new **Option 4**, and feel that other existing options remain incomplete. We believe they unnecessarily impose untenable compliance burdens on effectively all Australian researchers. For the broad range of researchers whose work actually involves DSGL technologies, the proposals would add an onerous permitting regime and remove the responsibility for risk assessment from those best positioned to make these determinations – the technical experts themselves.

Building on early drafts on the Paper circulated by Defence, we proposed various amendments designed to produce both a regulatory and permitting regime with maximum benefit and appropriate exemptions for scientific, health, medical and engineering research (resulting in the existing '**Option 3**'). Following discussion of **Option 3** with Defence, we provided further input aimed to focus resources on high-risk activities, and create high-level "filters" designed to exempt automatically certain classes of low-risk development activities that might occur routinely in university settings (exemption for supplies to citizens of Wassenaar countries and *public good* research as evidenced by the intention to publish). We also proposed important controls for the body of intangible transfers that we believe can be reasonably considered to pose a significant risk to national security. The flowchart in **Attachment C2** summarises the preferred model we provided to Defence by letter of 2 May to inform further consideration and discussion of how **Option 3** might be further improved to meet the policy objectives of the Wassenaar Arrangement and the Bill.

In the 4 June Paper, our proposed changes, which appeared initially to have been well received by Defence, now appear to have been displaced in favour of the provisions in **Option 4**. From the revisions to the paper it would appear that Defence has been influenced by the views of the Defence industries about the need for consistency with the control arrangements already in place for tangible supplies, and potentially with the approaches taken by the US and UK. Thus in **Option 4** Defence defers to an approach which they state effectively mirrors the UK arrangements, and focuses its efforts on those "supplies" of controlled technologies to foreigners outside Australia. ***We believe that crafting high-quality legislation should take precedence over maximisation of perceived consistency with international precedent or arrangements already in place for physical supplies.***

The new Defence Paper also talks about a misunderstanding of the operation of the DSGL. While it is not clear whether the statements are directed at the University sector, for clarity there is no misunderstanding on our part of the operation of technology controls as they appear in the DSGL. we believe that we have a very clear understanding and appreciation of the operation of the definition of the 'technology' controls for the Dual Use, Munitions and Sensitive and Very Sensitive Lists, and that this guided our push from the outset for the use of a 'high level' filter for 'scientific research', which included 'applied

research'. Controlled 'technology' for the Dual Use List is said to be defined according to the notes in the *General Technology Note under Part 2 – Dual Use List* (page 58 to 59 of the DSGL). The GTN needs to be read in conjunction with section E of Categories 1 to 9 of the Dual Use List so that for example, one needs to consider section E of the Dual Use Goods categories to see whether or not the specific "technology" in question is controlled, i.e. "technology" which is "required" for the "development", "production" or "use" of a particular Dual Use DSGL good. Those terms are each defined in the DSGL.

Overall our initial assessment of **Option 4** is that it takes us backwards significantly from what had been achieved with the earlier inclusion of **Option 3**. For the reasons outlined below our initial assessment of **Option 4** is that it is likely to be unworkable in a university context due to the nature of modern research and the compliance burden that this Option would place on what is likely to be a large body of Australian university researchers:

1. **Option 4** would take us away from the compliance benefits of **Option 3,** *such that nearly all Australian researchers would see significant compliance requirements*, in so far as that **Option 3** applied the early "high level" filter of "scientific research" (which exempted from permitting controls "basic", "strategic basic", and "applied" research as defined by the Australian Bureau of Statistics) for supplies of controlled technology **either inside or outside Australia**. It also ignores our suggestion of a *public good* research exemption (where intention is to publish research findings) for experimental-development research that does not involve items on the 'Very-Sensitive' or 'Munitions' Lists of the DSGL.

   From a practical compliance perspective, **Option 4** will therefore require all Australian researchers involved in technical interactions with foreign persons outside Australia, and whose research involves some form of technology that is not "already in the public domain" or classified as "basic scientific research", to:

   a. familiarise themselves with the entirety of the DSGL for awareness of what is/is not controlled in the DSGL, and identification of overlap between their research activities and DSGL goods. *Further, as the DSGL contains many surprising entries, including non-weapons-related elements from the periodic table, any change in a research program would require detailed review of the DSGL to ensure permitting is not mandated;*

   b. understand the detailed and variable meaning of the nature of a "supply" of technology to a foreign person in the context of intangible and tangible transfers. This includes maintaining a technical understanding of how the DSGL should be read in order to be in a position to make an assessment of the nature of that "supply" as it is controlled in the DSGL (e.g. is the information that I am about to "supply" outside Australia about the "use", "production" or "development" of a DSGL good (dual use or otherwise), and if so, what part of that information could possibly be controlled); and

   c. understand, in all circumstances, whether a particular intangible transfer under contemplation would be deemed to be "inside" or "outside" Australia.

   Requiring researchers and institutions to make technical legal assessments of what constitutes "supply", and requiring ***full review of the DSGL*** is precisely what we sought to avoid by seeking the application of high-level filters. Making such assessments is a complex legal consideration, and what this will require of researchers remains quite unclear based on the advice provided in the revised

Paper. It is much more desirable to have simple, understandable filters/exemptions applied early in the evaluation process in order *to focus the controls on the highest risk categories of research and supplies.* Moreover, there remains little clarity about other key terms such as "inside/outside" Australia, "basic scientific research", or "public domain", other than that they would be outlined in the Bill and defined in the Regulations. We do note, however, that Defence is continuing to work on these definitions.

Defence has previously indicated that there is no intention to control the "publication" of research findings, but the text on page five of the Paper clearly contemplates Defence issuing permits covering "publication". While we recognise that the higher education sector's views about free intellectual inquiry need to be balanced with considerations of the national security, we are concerned with this development and feel that at present the application of the permitting regime to publications is insufficiently clear. Here we feel it is important to note also that the principle of *free intellectual inquiry* has recently been entrenched by Commonwealth legislation as fundamental to the role that higher education institutions play in Australian democracy and civil society. All Australian higher education providers are now required by law to have in place a policy that upholds free intellectual inquiry in relation to learning, teaching and research.[4]

2. A key concern remains that the **inside/outside Australia** distinction favoured by Defence is largely irrelevant to the University sector due to the nature of modern scientific research. An overarching theme is that Defence does not appear to appreciate that effectively the entire body of low-risk, public-good scientific, health, medical and engineering research involves communication with foreign persons outside of Australia. *As it has been determined that a wide variety of cutting edge experimental disciplines involve controlled DSGL technology, this indicates that nearly all university research involving these technologies will involve some form of communication to foreigners outside of Australia*. This occurs in the form of publication, conference presentations, emailing data (generally via foreign servers) and collaboration. These are points that we have stressed to Defence repeatedly, but the jurisdictional approach remains a feature of **Option 4,** apparently due to the desire for alignment with the tangible supply regime and the approach that Defence advises has been taken by the UK. As a small nation and contributor to the global research effort, our global competitiveness is arguably more reliant on our researchers being connected by way of intangible transfers of technology than is the case for larger countries such as the US or the UK/EU. **Option 4** therefore appears to be inconsistent with the international competitiveness principle that Defence has included in the paper as a result of our discussions.

   On a positive note, **Option 4** includes the benefit of wholly exempting 'supplies' of controlled DSGL technology **inside Australia** to foreign persons from a permit regime (that is, in so far as prohibitions do not exist under other domestic legislation, including, for example, the Autonomous Sanction and Charter of United Nations legislation). This may benefit the provision of educational and research services that are not transferred **outside Australia.**

[4] *Higher Education Support Act 2003 (Cth)*: Section 19.115

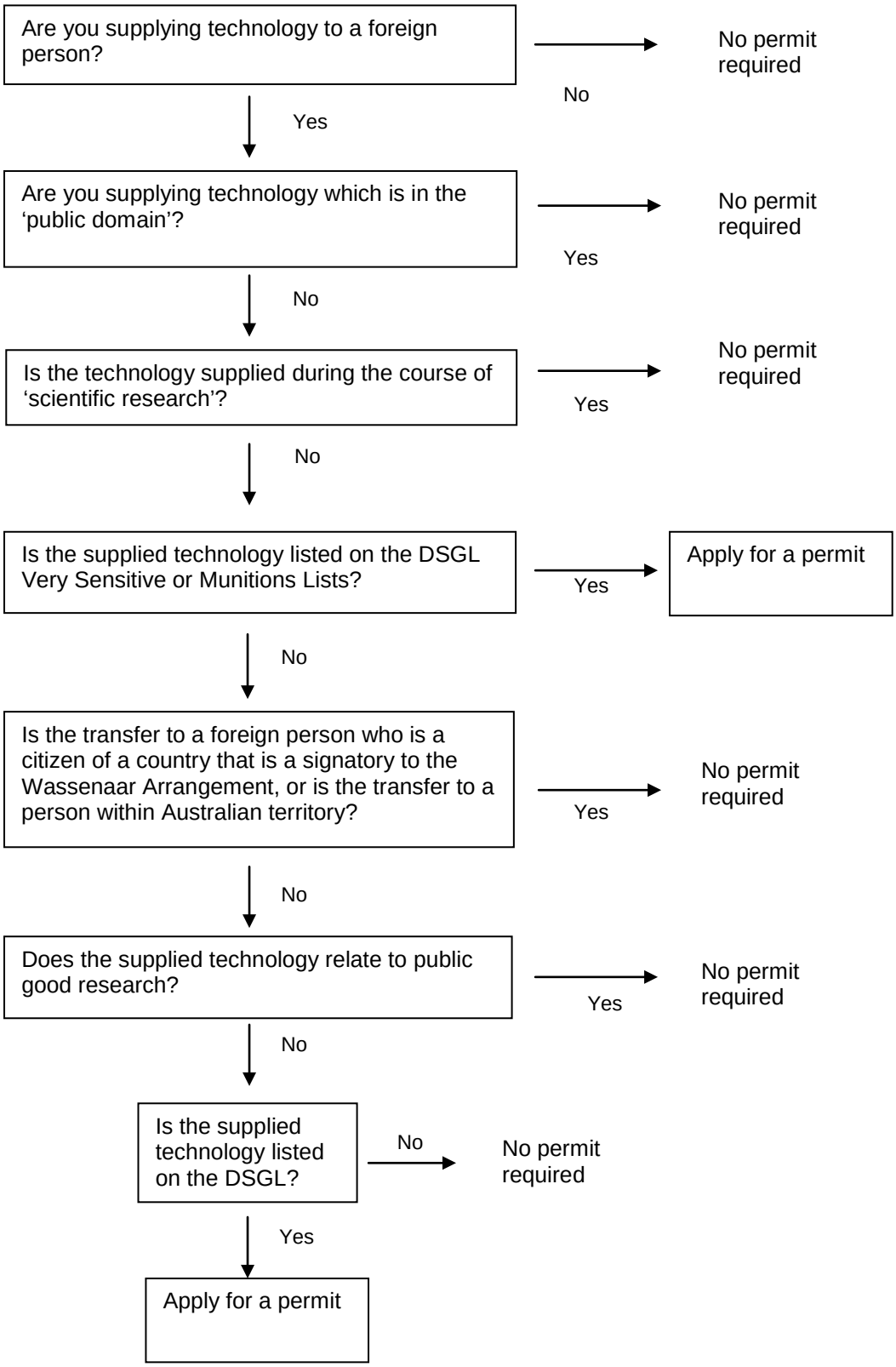
3. Another significant overarching concern is the notion of Defence requiring an opportunity to assess risk for the broad range of research activities that involve controlled DSGL technology. Again, the list is extensive, and in some cases very general, including non-weapons-related fundamental elements (e.g. the 'use' of Beryllium). Accordingly, a wide range of research activities in Australia would require Defence's permission to proceed, potentially stifling innovation, reducing agility and adding unreasonable delays to the natural and spontaneous course of scientific research. Defence's position as articulated in the Paper suggests that it believes it is better placed to assess the risk of transfers than the technical experts using a technology as part of their research.

   A regulatory regime where research experts are asked to certify to their parent institution that they deem their research to be either low-risk or non-defence is more likely to provide a positive outcome in terms of compliance and achieving national security outcomes.

4. Finally, if **Option 4** were to be implemented, we would be placing a large degree of trust in Defence to deliver on its commitment to work with those affected by providing training, awareness-raising materials, advice on establishing an internal compliance framework for our University, and in general ensuring that the permit regime is implemented in a way that is as "simple and practicable as possible" (see page 3 of the 4 June Paper). Permitting by its nature fails to capture the dynamic and often serendipitous nature of research. For example, what happens when a research group wants to add five new controlled DSGL technologies to their project? Will a new permit be required? By definition, broad permits will lag scientific and technological developments. When new developments occur during the course of research, which are not otherwise addressed by the scope of the permit, researchers would need to seek amendment to the terms of the permit. If this were to cause delays in the conduct of the research, it is likely that the research would be stifled with implications for the productivity and competitiveness of individual research projects and the Australian innovation system as a whole.

Attachment C2

Sydney Preferred Compliance and Control Framework for Option 3



Selected outstanding issues for resolution

1. *Exemptions and definitions of categories of research.* Option 4 proposes to limit exemptions to 'basic scientific research' only – that is, research that is "not primarily directed towards a specific practical aim or objective". As we have pointed out on numerous occasions, most grant-based research projects are required to establish the proposal's "practical aim or objective".

2. *Exemptions for categories of activities*. The Department has informally indicated there may scope for 'up front' permits to be provided for whole projects or categories of activities, thus limiting the points at which an individual researcher may need to consider whether they are in breach of the controls. Discussions to date have also canvassed the possibility that block permits or exemptions could be given to particular projects, centres of excellence, courses etc. The effectiveness of such a system will depend heavily on the mechanisms and criteria by which such exemptions might apply, and what level of variation would be tolerated as the research proceeds given the dynamic character of the research process.

3. *Definition of activities that are 'inside' or 'outside' Australian geographic borders.* No details have been provided on how to classify or monitor activities within or outside Australia's borders given the prevalence of digital communication and the volume of international collaborative research activity.

4. *Controls on publication.* No details have been given regarding how the Department intends for controls to apply to research activities that, by definition, are not yet in the public domain but which, by their very nature, place material into the public domain through publication. This is a highly fraught and complex issue which is currently occupying considerable time and effort both in the United States and the wider international community. It would be highly premature for Australia to replicate systems that are currently the subject of considerable debate and reform elsewhere.

5. *Lessons from international experience and alignment with international developments.* Consideration needs to be given to the lessons to be learned from other countries, especially those with which the proposed Option 4 is intended to align (especially the United Kingdom). Evidence indicates that these regimes are far from effective and characterised by low levels of awareness and high levels of non-compliance.

6. *Calculating regulatory impact.* To date, there is no assessment of the likely regulatory and compliance burden that universities would incur. No analysis has been conducted as far as we are aware of the existing risk profile of Australian university research, the amount of research activity likely to be covered by the control regime, or a methodology for forecasting and estimating cost.

7. *Mechanisms for risk assessment.* The Department Defence has indicated that it sees a need to take responsibility for risk assessment concerning intangible supplies across the full breadth of the highly diverse set technologies on the 380 page DSGL. We would question the capacity of the Department to accomplish this, especially in the absence of any quantified regulatory impact analysis and the current fiscal constraints.

8. *Compliance support and transitional arrangements.* No formal advice has been received on what support or transitional arrangements might be in place to support compliance within universities and research organisations and what additional resources might be available to the Department to ensure this is adequate.