Submission to the Commonwealth Digital Transformation Agency regarding its draft ICT procurement framework

Open Source Industry Australia Ltd
Amplifying the voice of the Australian open source software industry

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About OSIA

OSIA represents & promotes the Australian open source software industry by:

- Ensuring that the Australian business, government and education sectors derive sustainable financial and competitive advantage through the adoption of open source software and open standards;
- Helping Australian Governments to achieve world leadership in providing a policy framework supportive of open standards and of the growth and success of the Australian open source software industry; and
- Ensuring Australia's global standing as the preferred location from which to procure open source services & products.

OSIA's members are organisations in Australia who invest in or build their future on the unique advantages of open source software. For further information, see the OSIA web site at http://osia.com.au.

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1. Executive summary

OSIA welcomes this opportunity to comment on the draft framework and we thank DTA for that opportunity. We are pleased to be returning to our former involvement in the Commonwealth's ongoing ICT procurement reform initiative after a considerable hiatus: OSIA was involved in direct consultations with the Task Force in mid to late 2016 and was represented at the Task Force's round table in Canberra in December 2016 but has not been directly engaged in the process since then, although two of our member companies did collaborate on an independent submission to the Task Force in January 2017[1], to which we refer later in this document.

The draft framework as presented[2] strikes us as a bit of a mixed bag. Some of its principles and policies, such as the new emphasis on open standards and on cybersecurity are clearly genuine improvements. The continuation of some existing (but relatively new) policies such as cap term & value are also laudable.

On the other hand, we note the complete absence of any reference to free[3] and open source[4] software (FOSS) in the draft framework (and indeed the presence of some aspects which come across as markedly anti-FOSS), which stands in stark contrast to the more forward-looking approaches taken by governments in many other leading jurisdictions around the world which are mostly moving towards a strong preference---and in some cases even a mandate---for FOSS.

The continued (and in our view misguided) explicit references to COTS ("commercial off-the-shelf software")---particularly in the absence of any references to FOSS---and the continued presence of anti-competitive single-vendors panels are two examples of where the bias against FOSS is most apparent.

Nevertheless we recognise that the draft framework is just that---an early draft. We fully expect that DTA will follow its own sagely advice to "be innovative; iterate often" and we look forward to reviewing those further iterations in the months to come and helping DTA achieve a final framework that will be both more balanced and more likely to facilitate achieving the cost savings and innovation gains that were the project's original goals.

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[1] Burton, J. & Holden, C., *Submission to the Department of Prime Minister & Cabinet on the ICT Procurement Task Force's consultation paper*, Safecoms Cyber Security, Adelaide, 31 Jan 2017. Available at https://safecoms.com.au/pub/safecoms_sub_201701_pmc_ictp.pdf

[2] https://www.dta.gov.au/ict-procurement-update/ict-procurement-framework-open-for-feedback/

[3] See Stallman, R., *What is free software?*, Free Software Foundation. Available at http://www.gnu.org/philosophy/free-sw.en.html

[4] See Perens, B., *Open Source Definition*, Open Source Initiative, 1998. Available at http://opensource.org/osd

2. General observations on the framework

2.1. Principles

2.1.1. Encourage competition

This principle aligns well with the goals and philosophies of the Australian FOSS industry. FOSS allows smaller teams to deliver bigger projects or participate in more projects. That drives competition.

Equally important is the genuine competition in the secondary market for software maintenance & support---that's where FOSS really excels at competition: *any* suitably competent firm can provide true vendor-level support for FOSS (because we all have the source, and patches contributed back upstream are considered only on their technical merit, not their corporate affiliation), whereas with non-free software the limited monopoly granted by copyright to the vendor also bestows upon that vendor what effectively amounts to a *secondary* monopoly on the market for ongoing maintenance & support of the software. Competition in the secondary market for software maintenance & support drives down costs, drives up efficiency & fosters innovation.

2.1.2. Be innovative, iterate often

This principle also aligns well with the Australian FOSS industry. FOSS makes it easier to migrate from one solution to another and facilitates incremental in-house development.

Flexibility is also key to innovation. The rights to modify & redistribute (enshrined in all FOSS licences by definition) help to foster innovation: the ability to contribute patches directly upstream (and if not accepted, the ability to fork) allows end-user organisations (including Commonwealth agencies) to participate directly in the sort of incremental innovations that simply aren't possible with non-free software.

2.1.3. Be structured in a way that enables SMEs to compete fairly to directly provide components of significant ICT projects

A strong emphasis on open standards as well as a strong preference for FOSS would enable this goal. A closed-source vendor is only enabled to gain a monopoly on providing ongoing vendor-tier support for and maintenance of their software because they are the only entity with access to the source code (and just as importantly the right to modify it) to be able to do so. Where the source code of a system is freely and publicly available, there is no such monopoly and any suitably skilled service provider can provide support, maintenance programming and other ongoing development.

2.1.4. Be outcomes focussed

It is not clear from the draft framework exactly what is meant by "outcomes focussed". In our view, it is important that agencies focus on communicating their business requirements (not merely technical requirements and certainly never predetermined product choices) to industry when undertaking ICT procurement---and evaluate the tenders / proposals received directly against their ability to address those business requirements. Ignoring this very basic procurement principle is why we see such bizarre things as procurement panels for software from single vendors (e.g. the current Microsoft & SAP panels), which strikes us as a rather prejudicial approach to procurement.

In short, "be outcomes focussed" is a worthy principle if and only if the outcomes referred to are business outcomes, rather than technical ones.

2.1.5. Use open standards and cloud first

OSIA strongly supports the mandatory use of open standards as a core procurement principle and we welcome DTA's addition of this principle to the draft framework.

We are less enthusiastic about the "cloud first" principle. The cloud as a delivery mechanism carries both benefits and risks. It is naive to mandate either a "never cloud" or a "cloud first" approach, since there are so many factors to consider.

When it comes to cloud services, using only FOSS becomes even more important. In addition to helping ameliorate some of the risks, FOSS enables moving between cloud and on-premise systems without as much cost or effort.

We note that most cloud services are built on FOSS, for all the same reasons that any enterprise (including the Commonwealth) should adopt a strong preference for FOSS.

On the other hand, it should be noted that one of the core purposes of FOSS is to empower the end user organisation (in this case a Commonwealth agency) with the ability to control its own computing. Cloud services run counter to this principle---in effect, by selecting a cloud service, the end user organisation is handing over to someone else complete control of its computing. In some cases the benefits will outweigh the costs and risks; in others they will not.

OSIA suggests that the Commonwealth should use cloud services when on balance they present greater value than cost and the individual service in question meets all of the agency's information security requirements fully.

2.1.6. Minimise cybersecurity risks

OSIA supports DTA's decision to emphasise information security risk minimisation as a key principle.

We note that, in many instances, the introduction of licensing enforcement mechanisms for software increases complexity, introduces additional points of failure and obscures system operation making security audits more difficult and diagnosis and repair of failures slower, more difficult and consequently more costly. For example, one failure could be caused by an interruption in communication with a license server. Another failure could be caused by an incompatibility between two versions of software that use slight variations of a non-published communication protocol and where there are no available tools to validate that communication protocol. Some vendors deliberately do not make diagnostic tools available so as to prevent the investigation of internal system functions and thus protect their intellectual property.

In addition, we note that in the non-free software world the vendor itself is now becoming a new attack vector. For example the latest release of the world's most common desktop operating system now exfiltrates user data and sends it to the software vendor by default! We were astonished and dismayed to hear that some Commonwealth agencies have adopted or are considering adopting such insecure-by-design software.

2.1.7. Not duplicate the building of platforms built by other agencies

As stated, this principle is ambiguous: it could have at least two meanings and OSIA's views on it are diametrically opposed to each other depending on which is the correct interpretation. Regardless of whether DTA takes our views on each interpretation on board, we strongly recommend clarifying the meaning of this principle in the next iteration of the framework.

If this principle is applied to software as a development process, it makes very good sense indeed. FOSS is built on the tradition (which dates back to the dawn of computing) of software reuse: one should not "reinvent the wheel". If a problem in computing has been solved before, chances are there is already a library that implements a working solution available under a FOSS licence. Using that library, rather than writing a new one from scratch, saves the implementing agency time and money.

Similarly with more complex requirements, where there might not be an exact implementation already out there, chances are there will be something sufficiently close already released under a FOSS licence, which the implementing agency can modify (a right granted to end users by definition under all FOSS licences) that implementation far more quickly and at far less cost than developing afresh (and with far greater flexibility than trying to shoehorn its business requirements into fitting some close-but-not-quite-right COTS package). The agency can contribute its modification upstream and if accepted, the community will maintain it (saving the agency some if not all of the cost of maintenance programming into the future).

However, if this principle is applied to software as an infrastructure substrate, it would be a terrible idea. If we say, for example "all agencies must use the same ERP software", or "all agencies must run the same DBMS", or "all agencies must use the same email software", or "all agencies must run the same

office automation software" or even "all agencies must build their web sites using the same CMS", then we have just killed almost any chance of any future innovation in government computing.

Innovation occurs when different ideas are allowed to compete, relatively unconstrained (beyond the obviously necessary legal & ethical constraints). This is not a new or surprising concept: on the broader stage it is also one reason why democracies tend to flourish, whilst autocracies tend to crumble over time. In software, multiple competing ideas are also key to the process of innovation---but only when all software concerned is FOSS: since the rights to modify & redistribute allow organisations to take the best ideas from each competing program and combine them. Often the most successful FOSS projects end up cross-pollinating each other in just that way.

2.2. Policies

2.2.1. Fair Criteria Policy (new)

The draft framework describes this as:

> *The objective of the Fair Criteria Policy is to encourage competition and support SME participation. It could include considerations around insurance, limiting liability, security, and separate financial criteria for large enterprises and SME, where appropriate.*

OSIA welcomes any new emphasis on encouraging competition and supporting direct SME participation.

We see little benefit (and added risk for the Commonwealth) in having separate financial criteria for large & small suppliers where those suppliers are competing to supply similar software under similar licences.

However, we see great benefit (and far less risk) in lowering financial criteria for those suppliers (large or small) who agree to supply software only under FOSS licences. This approach is considered safe because the Commonwealth only needs to be assured that suppliers of FOSS will remain viable until and just past delivery of the requirements sought, since with FOSS any competent computing services firm (not only the original vendor) can provide maintenance programming, other ongoing development and vendor-tier support services (whereas with closed source software, only the original vendor can provide those services adequately, since only the original vendor has access to the source code and the rights to modify & redistribute it). We note also that that approach was proposed to the Task Force last year by two of our members[5].

Limits on liability may also be helpful to our members. Although we haven't heard complaints on that front in relation to the Commonwealth Government, we note that at least one State Government was attempting to require FOSS suppliers to provide indemnities with unlimited liability, whilst not imposing

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[5] Burton & Holden, *op. cit.*, s. 3.2, p. 11.

such outlandish requirements on their closed source competitors. We are grateful that the Commonwealth has not instituted such a policy.

2.2.2. Consider First Policy (new)

The draft framework describes this as:

> *The objective of the ICT Consider First Policy is to make sure all options are considered before procurement starts. It could include consideration of Cloud First, Open Standards, Cybersecurity, Shared Platforms, Digital Service Standards and Commercial Off The Shelf (COTS).*

OSIA supports a "consider first" policy but not the specific "consider first" policy described in the draft framework, for a number of reasons as described below.

In our view the first and foremost consideration in any "consider first" policy should be "FOSS first", for all the reasons outlined elsewhere in this submission. That item is missing entirely from the list.

On the other hand, OSIA welcomes the inclusion of open standards and cybersecurity in the "consider first" list.

We note however that in most (but not all) cases, "cloud first" and "cybersecurity first" are incompatible objectives. Therefore, at a minimum the "cybersecurity" item should be move further up the list (to before the "cloud first" item).

"Shared platform" could be either an advantage or a disadvantage. For example, if the software selected for the shared platform is not FOSS, mandating the use of a shared platform will exacerbate agencies' issues with vendor lock-in. On the other hand, a shared platform (or ideally two alternative shared platforms) both implemented as FOSS could help foster greater innovation in government ICT, as agencies build upon and improve the platforms over time.

Listing "Commercial off the shelf (COTS)" software as a priority in principle without also listing FOSS strikes us as inappropriate. Whilst some authors consider FOSS to be a subset of COTS[6], that is not a widely held view. As we see it, this "principle" appears designed to write our entire industry sector out of the public sector market. Understandably, we are a little miffed by that rather discriminatory suggestion. See our comments later in the submission.

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[6] e.g. see https://www.dwheeler.com/essays/commercial-floss.html

2.2.3. ICT Portfolio Panels (existing, proposed changes)

The draft framework states here:

> *The new focus of the ICT Portfolio Panels Policy is to encourage competition and support SME participation. This policy is an update and reinvigoration of the existing policy considering areas such as refreshable panels and endorsement from DTA.*

OSIA makes no comment here on the category-specific panels but we have major objections to the vendor-specific panels, which effectively lock our members in the Australian FOSS industry out of winning government business in certain specific fields of software.

We note that, far from encouraging competition, two of the existing panels actively stifle competition by restricting choice of software to the products of only one vendor each (these are the "Microsoft software" and "SAP" panels). Having multiple resellers "compete" to sell the exact same product from the exact same vendor yields only an illusion of competition.

Genuine competition could be enabled (and innovation encouraged) by abolishing the single-vendor panels and instituting a policy of going to market with agency's business requirements rather than the predetermined outcomes seen at present in those areas.

It should be noted that the fields of software in which the Commonwealth currently grants a single vendor monopoly or near-monopoly status (such as ERP systems, mail systems and desktop operating systems) are also the fields of software in which the least innovation has occurred in government ICT to date and the least cost savings have been achieved. This is no coincidence: monopoly arrangements almost always lead to monopoly rent-seeking and a chilling of innovation.

2.2.4. Capped term & value (existing, review)

The draft framework states here:

> *This is a review of the existing ICT Capped Term and Value Policy to determine if the policy is delivering the intended benefits. This aligns with the taskforce report which recommends regular review and renewal of the ICT Procurement Framework and Policies. The review would be based on evidence and informed by data.*

OSIA welcomes the ICT Capped Term and Value Policy, since smaller, incremental contracts are better suited to the FOSS model. We also support the need for regular policy reviews, although we doubt that this policy has been in effect long enough yet for there to be sufficient data to conduct a meaningful review at this point in time.

3. Questions on the framework for buyers and sellers (figure 1)

3.1. *List the parts of the framework that are most important in what you do. Why are these important?*

OSIA welcomes the inclusion of a formal principle encouraging the use of open standards. Such a requirement not only aids in the procurement process itself by fostering innovation and more balanced competition between vendors, but can provide savings in the long term through reduced vendor lock-in. We note also that, beyond the realms of procurement policy, a mandate for open standards carries clear benefits for open data & open government initiatives in general.

We caution that a "cloud first" principle is not always compatible with open standards and many commercial cloud offerings can limit future procurement choice. If a "cloud first" approach is to be adopted, it should only be undertaken with open standards and frameworks that allow for future portability. If this is not considered, other principles such as "iterate often" and "encourage competition" can be severely constrained.

We caution also that a "cloud first" approach is often (but not always) incompatible with a "cybersecurity first" approach (also called for, which we also support). The Commonwealth should be careful to accredit only those few cloud service providers who take a "security first" approach---and in this context, security should be construed to include privacy. Happily, those cloud service providers who do put their users' security first universally adopt open standards and almost universally use only FOSS.

3.2. *How could you use the framework to make an effective procurement decision?*

The framework outlines several principles that help in providing confidence that processes will not discriminate against emerging and innovative technologies and methodologies, particularly those from the Free and Open Source Software industry.

3.3. *What else would you need from an ICT procurement framework to make an effective procurement decision?*

3.4. *Is there anything else you would need within a framework to make an effective procurement decision?*

Whilst the inclusion of the "Use of open standards" principle is encouraging and welcomed, OSIA strongly recommends adding "Use of free and open source software (FOSS)" as a leading criterion.

Open standards go a long way towards avoiding or mitigating such pervasive problems over the ICT lifecycle as vendor lock-in, planned obsolescence, technical debt etc.. FOSS goes substantially further by removing any dependence on specific vendors in future procurement decisions and opens up access for the Commonwealth to a whole new competitive secondary market for software maintenance and vendor-tier support (something which only the vendor itself can offer in the case of non-free software).

4. Additional questions for people selling to government

ICT procurement covers hardware, software and services. FOSS is principally concerned with software and services (where the work performed includes FOSS-specific skills). Although open source hardware does exist in the market (indeed one of our members is a world-leading manufacturer of open source hardware), OSIA's collective expertise is mostly in the software and services areas. As a result, we confine many of our comments to software & service procurement. We note however that the emphasis on open standards is equally important in relation to hardware procurements, for ease of integration and interoperability purposes.

It is also worth noting that, to a certain extent ICT hardware probably can be procured much like any other similar-scale asset, but software and computing services are specialist fields of procurement which require a markedly different set of approaches to procurement.

4.1. *How do you think the proposed framework will change your procurement experience with government?*

It may help our members to reconsider past assessments which in many cases concluded that there was no business case to respond to tenders due to compliance cost, the complexity of writing and submitting a tender, insurance requirements, size of business expectations, vendor-specific certifications, vendor partner programs and so on. This will only be the case if the framework, modified based on feedback, is followed in practice.

We note also (as two of our members did last year[7]) that the Commonwealth Procurement Rules are actually quite fair---but anecdotally some of those fairness provisions don't seem to get enforced universally.

4.2. *Which is the most important principle to your business, and why?*

ICT procurement as a whole is a necessarily complex endeavour. Whilst we are loathe to single out a sole most important factor, as we have been asked to do so, we offer the following: "Be structured in a way that enables SMEs to compete fairly to directly provide components of significant ICT projects".

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[7] Burton & Holden, *op. cit.*. s. 4.2, p. 16.

Why? Because FOSS decreases the costs of submitting a tender while also increasing competition by not eliminating providers based on their lack of access to the source code (as is the case with closed-source software). Plus, it enables true competition in a secondary market for services such as training, support and maintenance.

Although that strikes us as the most important principle of those already identified by DTA, we note that there are other principles missing from the list of equal or greater importance---see Section 4.5.

4.3. *Which is the most important proposed policy for your business, and why?*

The most important policy is "Consider First" which is discussed extensively in Section 4.5. The other important policy is "Fair Criteria".

FOSS solution providers are required to prove they are big enough to be around for the support and maintenance. Whereas this is what you would (and should) require proprietary solution providers to do. Instead, FOSS solution providers should be asked to prove they can fully hand over the project for another team to support. This is the beauty of FOSS, that one team can implement and another team can provider the support, and another team can provide the training. Most criteria that are designed for closed-source providers should not apply to FOSS providers and act only as artificial barriers to entry for them without serving any purpose.

We are not arguing that FOSS suppliers should not be subject to eligibility criteria. Rather we are pointing out that different eligibility criteria are necessary when assessing the suitability of FOSS suppliers and closed source software suppliers: for closed-source software suppliers, the existing criteria, with a greater emphasis on things like long-term financial viability, make sense because the secondary monopoly the supplier holds means that the buyer is locked in to using that supplier for the life of the software (so it is a disaster for the buyer if the supplier ever disappears); whereas for FOSS suppliers it is far more important to evaluate the firm's capability of delivering a well-documented, eminently maintainable code base (which can then be maintained and/or supported by any suitably competent firm thereafter).

4.4. *What type of industry/government forums have you seen work well, and why did they work?*

Whilst we acknowledge that our experience with industry/government fora is not comprehensive, we note that to date we have not seen an industry/government forum work well. This comment is not intended to discourage the Commonwealth from engaging with industry, quite the contrary: we agree with DTA on the importance of government engaging and collaborating with industry more effectively, to foster greater innovation in ICT procurement and in government ICT in general.

However, perhaps industry/government fora, as the term has been understood to date, might not be the optimal way to achieve that goal. A number of other engagement & collaboration models are possible.

The first that comes to mind is the sort of collaboration for which FOSS projects are best known: a totally transparent, public process. This is likely to be feasible for many, but by no means all, government requirements.

For the others, it is well worth exploring some alternative models for industry/government collaboration. For example, one such model is described in the section entitled "Collaboration" of a submission lodged with the Task Force by two OSIA members in 2017[8]. Other such models likely exist too.

4.5. *What is the one thing you would change about how government procures products and services, and why?*

Given all the benefits of using FOSS for the procurer, for the industry and according to the mandate of the Government, we simply think ICT procurement needs to have an "Open Source first" policy which requires formal justification for any non-FOSS procurement decision. This is the approach that many Governments around the world are taking, including the United States "Federal Source Code Policy: Achieving Efficiency, Transparency, and Innovation through Reusable and Open Source Software"[9].

Simply using FOSS, helps creating the industry around it and strengthens the community. Hence, it will be more of an investment than a cost. Use of FOSS by a large procurer such as the Commonwealth, directly and indirectly creates jobs for Australia.

Software built with public funds ought to be made publicly available: releasing it under a suitable FOSS licence allows for that, amongst many other benefits. This can also be viewed as an investment, the return on which comes from the FOSS community bearing much of the cost of maintenance programming.

FOSS is aligned with all principles in the framework which we support:

1. Encourage competition:
   FOSS allows smaller teams deliver bigger projects or participate in more projects. That drives competition in both the primary & secondary markets---see Section 2.1.1.

2. Be innovative, iterate often
   FOSS makes it easier to migrate from one solution to the other. Also, allows for in-house development.
   FOSS allows the end user organisation to develop its own new features (without requiring the vendor's help or permission) and contribute those patches upstream. FOSS project maintainers will often accept such patches gladly, but even if they don't, the end user organisation can always maintain site-local patches or even fork the project.

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[8] Burton & Holden, *op. cit.*, s. 5.2, pp. 18-19.

[9] https://sourcecode.cio.gov/

So, not only software development is not in the way of innovation, it can foster it (as end user organisations can directly implement others' solutions). These sorts of approaches are simply not possible with closed-source software.

3. Be structured in a way that enables SMEs to compete fairly to directly provide components of significant ICT projects:
    Open Source and Open Standards will enable this. Open Source solution providers do not need to be big to be able to deliver a high standard solution, as they all share the same technology. This will also contribute to employment and extended markets like training and support.

4. Use open standards and cloud first:
    When it comes to being cloud fist, using open source becomes very important.

5. Minimise cybersecurity risks
    Security of Open Source software is clear to everyone. From Mozilla Firefox, to most of internet infrastructure we are using Open Source. See also our comments in Section 2.1.6.

There are a number of issues that arise within the current mechanism of procurement. Some of these are addressed with the emphasis on using open standards. This should be supplemented by a strong presumption in favour of FOSS when acquiring software. Even that however leaves out two significant aspects that would enhance the whole of open government procurement.

OSIA recommends that the Commonwealth mandate that all software (and, where applicable, hardware) specifically designed for, or written for a government project, paid for by public monies, be released under a suitable FOSS license. This not only ensures the code itself is most likely to be free from hidden security risks but that it can be reused easily. If code is written for a specific government project then there should be no need to pay for this same software to be reused in yet another similar government project.

This approach will also mitigate some glaring issues that were raised in the recent OGNAP[10] forum, those of transparency and accountability in the decision making process.

The most difficult section of government procurement occurs in the lack of transparency in the decision making process and the accountability of the individuals involved in the decision. There is a very strong tendency for tenders documents to be shrouded with company confidential clauses to the detriment of allowing bidders to receive appropriate feedback on to why their bid failed.

Bids, and the bid process in itself is already government confidential, however once the tender has been awarded, then all bids for government projects should be made public. Company confidential clauses are used to stifle discussion on the pro's and con's of any bid. By enforcing the release of any public paid for code or design the use of company confidential clause are totally negated.

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[10] https://ogpau.pmc.gov.au/

With the transparency of the bid, even if after the fact, a great deal of confidence in the procurement process will be restored.

This will then lead to the correction of the second issue seen with the current procurement process, that of accountability. A fully transparent procurement system, even if after the fact, will allow automatic review of both the decisions made and why these decision were made.

The most important principles are transparency in the process than ensures a high level of accountability which then allows for very high degree in the belief that the process is fair!

4.6. What elements of the framework have the most potential to save you time?

Of the seven principles and four policies of the framework, only half of one principle is likely to save our members significant time: "Use open standards … first". If this principle can be taken for granted in all future Commonwealth procurements, it will mean that our members will not need to re-mount the arguments that demonstrate why open standards are essential over and over again in each & every proposal or tender.

The value of that decision should not be underestimated. However, its value could be extended substantially by altering the wording to "use open standards only" (instead of first). The use of "first" implies that there might be some circumstance in which it was not to the advantage of all parties (seller, buyer, internal users & external users) concerned to use open standards. That simply isn't true. It is quite safe to mandate open standards, since by definition every vendor is capable of implementing open standards.

As noted elsewhere, a "FOSS first" principle would be of even greater utility to government and industry alike. See also Section 4.5.

4.7. How does your experience of ICT procurement differ to general procurement?

We have on occasions seen ICT procurement being performed by staff who don't understand the technology they are procuring nor the ramifications of a technology decision made during procurement. For example, the purchaser of a John Deere tractor may not consider the down-time, spoiled crops and tractor transport costs or call-out fees associated with the lack of timely firmware fixes and updates. See also our comments in Section 5.2.

5. Supplementary observations on the draft framework

OSIA notes a number of matters relating to the draft framework which sit outside the scope of the "questions to prompt your thinking" offered by DTA.

Since DTA noted that following the suggested questions would help build upon their previous user research findings, we have tried to separate the following supplementary observations as much as possible from our answers to the prompting questions.

5.1. Methodology

The DTA web site provides very little detail on the methodology followed during the most recent iteration of the project in developing the draft framework.

In fact, the "open for feedback" page is quite light on in terms of detail generally. This is not a criticism, quite the opposite: we see it as a clear indication that the framework must still be in its early stages of development. OSIA welcomes DTA's decision to seek further stakeholder feedback this early in the process, well before the framework is set in stone. However, the level of detail given does leave room for a little ambiguity.

5.2. Generic procurement expertise & domain-specific expertise

One example of this ambiguity is that while the page notes "the exemplar team was made up of [eight] procurement experts from seven Australian Government agencies", it does not specify whether those procurement experts also had deep domain-specific expertise in the field of computing (and if not, whether or not their procurement expertise was supplemented by the addition to the exemplar team of others with strong computing backgrounds).

The question of whether, in ICT procurement or in any other specialist procurement domain, to place greater emphasis on generic procurement expertise or on domain-specific expertise is an age-old one, for which there is no overwhelming consensus view today, either in government or in industry.

Earlier in the Commonwealth's ICT procurement reform process, two OSIA members---Holden Dynamics Pty Ltd and Saosce Pty Ltd---collaborated on a submission to the ICT Procurement Task Force which addressed that question directly[11].

OSIA supports the view expressed in that submission, namely that whilst deep domain-specific expertise must be regarded as at least as important as generic procurement expertise, the ideal composition of any panel (or indeed policy review body) must include both.

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[11] Burton, J. & Holden, C., *op. cit.*, ss. 5.1 & 5.3, pp. 18-19.

5.3. Industry consultation

The page states that "The team conducted ... consultation sessions with multiple agencies and industry bodies". We agree with DTA that agency and industry involvement throughout the policy and framework development process is important.

However we note with some dismay that OSIA was not invited to participate in that process during the most recent phase of the project. As the second most recognised software industry body in Australia (after AIIA), we find this surprising, particularly given that OSIA had been involved in various discussions with the Task Force in late 2016.

That exclusion may have been understandable on the basis that OSIA did not lodge a formal submission to the Task Force. However, we note that those OSIA members who did lodge a submission to the Task Force were also not invited to participate.

Whilst we do not know which industry bodies or individual companies from Australian industry were invited to participate, from the outcomes in the draft framework we suspect that the Australian FOSS sector was not represented in any capacity. Given the important role that FOSS can, should---and we submit, must---play in achieving the Task Force's original goals of driving innovation in government and reducing cost, we find our sector's exclusion from that process most concerning.

5.4. DTA findings

The "open for feedback" page outlines six key findings from the process DTA undertook to develop the draft framework. In this section we comment further on those findings.

5.5. Panels

DTA found that "new players and emerging technologies are locked out because traditional panels are not set up to bring on new service categories". This is true, but we note that the lock-out is not confined to new service categories or to players who are new to the market as a whole, but applies equally to players who are well established in industry but have not previously approached the government market.

If the Commonwealth is serious about its expressed desire to involve more SMEs in government procurement (directly, rather than as mere subcontractors to prime tenderers)---a desire which we welcome and share---it will need to take steps to address the "closed shop" image that panels inevitably create.

One way to do that would be to abolish the category-specific panels altogether. Some sort of accreditation process will most likely still be required, to help agencies assess the technical capabilities of would-be suppliers in the Australian computing industry. We are not certain exactly what such a process should look like, but we are certain of a few key features it should have:

Firstly, accreditation of a new applicant company should be possible at any time, not just "when a panel is due to be refreshed". Note that we specified "new applicant company": it remains perfectly reasonable for the Commonwealth to prescribe a minimum period for which an applicant who failed accreditation must wait before applying again, within reason.

Secondly, it should be government-wide and across all categories within four very broad classes: ICT equipment (computing & communications hardware); computer software (which includes provision of existing software, development of new software and maintenance programming as well as delivery of software through alternate means such as the cloud); commodity service provision (telcos, ISPs, colocation & hosting providers, etc.); and computing consultancy (which does not include contractors---personnel management is not a subset of procurement).

How would such broad categories work? The answer, at least as far as the software and consultancy categories (in which most of our members operate) go is quite simple, but carries an important prerequisite: that the Commonwealth embrace a "FOSS by default" policy to software acquisition[12]. With such a policy in force, the rights to inspect, modify & redistribute source code (which are inherent in all FOSS licences by definition) can be leveraged by the Commonwealth to deliver a far simpler approach to procuring services in relation to software (be they software development services, support services, or any other relevant services).

That is because with access to the source code, any company with suitably competent personnel can deliver those services with respect to any software (so long as it is available under a FOSS licence). So the Commonwealth then only needs to accredit supplier companies on the basis of generic computing capabilities, not category-specific ones. For the same reason, it then becomes superfluous to assess supplier financial viability beyond the duration of the specific contract being let, thus further simplifying the accreditation process.

Such a set of policies and processes should be considered the ideal. In the unfortunate event that the Commonwealth opts not to pursue the ideal, at the very least it should begin by abolishing all vendor-specific (as opposed to category-specific) panels.

For example, panels currently exist for "Microsoft software" and "SAP software". The very existence of such vendor-specific panels actively discriminates against all of Microsoft's and SAP's competitors (including but not limited to the entire Australian FOSS sector).

For more information on this problem (in relation to the MVSA, a predecessor of the "Microsoft software" panel), see the section entitled "Inertia, bias & anticompetitive procurement: a case study" in a submission lodged with the Task Force by two OSIA members last year[13].

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[12] Such policy options have been pursued by a range of other governments around the world. For a good summary of these, see Burton & Holden, *op. cit.*, s. 4.1, pp. 13-15.

[13] Burton & Holden, *ibid.*, s. 6.1, p. 21.

5.6. One size doesn't fit all

OSIA welcomes and supports DTA's finding that different agencies have differing requirements and that ICT procurement policy requires flexibility and wide consultation.

We note and support also DTA's recommendation to increase the $80,000 threshold. We note however that increasing the threshold alone would not deliver the sort of flexibility required. The approach taken so far appears to contradict the finding of a need for flexibility by seeking to centralise Commonwealth ICT procurement and ICT procurement policy to far too great a degree. In our view a balance must be struck between the economies of scale achievable through centralisation (which in truth only apply to commodity purchases, not to the vast majority of ICT procurement) and the flexibility and responsiveness to agencies' specific business needs inherent in a distributed approach on the other.

DTA's finding that the $80,000 threshold is dictated by Australia's international trade agreements raises another issue to which OSIA and our members have often spoken[14]: trade agreements should only be about free trade (i.e. the abolition of tariffs and quotas), to the exclusion of all else. The inclusion of innumerable chapters on other matters in Australia's more recent "trade" agreements has led (and threatens to continue to lead) to a stifling of Commonwealth policy reform options in all sorts of areas (of which procurement is just one).

We realise that DTA is not in a position to set Australia's foreign trade policy itself, but we hope DTA will urge its colleagues at DFAT to abandon the relatively recent practice of negotiating trade agreements with provisions relating to anything other than reciprocal abolition of tariffs and quotas (plus the rules of origin necessary to support their abolition).

5.7. Guidance

DTA's third and fourth findings both relate to guidance. OSIA welcomes the sensible finding that agencies can and should benefit from a central repository of information about ICT procurement and each other's experiences with various ICT solutions in general. We note that this is in line with measures

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[14] Burton, J., Holden, C., & Christie, D., *Submission to the Commonwealth Department of Foreign Affairs & Trade on the Trans-Pacific Partnership*, Open Source Industry Australia, 24 June 2013, s. 1.2, p. 5. Available at http://osia.com.au/f/osia_trans_pacific_partnership_submission_0.pdf; Forsstrom, A. & Burton, J., *Submission to the Productivity Commission's Inquiry into Intellectual Property Arrangements*, Open Source Industry Australia, 30 November 2015, pp. 9-10. Available at http://osia.com.au/f/productivitycommissionreport.pdf; Burton, J. & Foxworthy, P., *Submission to the Commonwealth Joint Standing Committee on Treaties regarding the Trans Pacific Partnership*, Open Source Industry Australia, 11 March 2016, ss. 2.2 & 5.2, pp. 4 & 8. Available at http://osia.com.au/f/osia_sub_201603_jscot.pdf; Burton, J. & Foxworthy, P., *Final submission to the Productivity Commission's Inquiry into Intellectual Property Arrangements*, Open Source Industry Australia, 3 June 2016, s. 2.15, pp. 19-20. Available at http://osia.com.au/f/osia_sub_201605_pc_ip.pdf; Burton, J. & Foxworthy, P., *Submission to the Senate Standing Committee on Foreign Affairs, Defence & Trade regarding the Trans Pacific Partnership*, Open Source Industry Australia, 26 October 2016; Burton & Holden, *op. cit.*, s. 3.3, pp. 12-13; and Burton, J. & Phillips, M., *Submission to the Commonwealth Joint Standing Committee on Treaties regarding the "Comprehensive & Progressive agreement for Trans Pacific Partnership"*, Open Source Industry Australia, 20 April 2018, ss. 2 & 4.1-4.2, pp. 4-8 (to appear---pending Committee approval to publish).

proposed by some of our members before[15] and in line with the original vision of the former Open Technology Foundation (albeit on an overly ambitious scale in the latter case).

Nevertheless, we caution the Commonwealth against the risk of centralising too much. Knowledge certainly benefits from being collated centrally and disseminated widely and likewise very broad high-level policies; but development of more granular policies, development of almost all processes & practices and decision-making in general are almost always more effective when distributed rather than centralised.

5.8. Sense of restriction

OSIA shares and welcomes DTA's finding the the existing Commonwealth Procurement Rules (CPRs) are not overly restrictive. We note that the CPRs are in general quite fair, although historically they have only been enforced rather inconsistently.

Although we do not find fault with the CPRs, we do note that the "sense that procurement is very restricted" is accurate for other reasons: principally revolving around cultural rigidity & inertia ("nobody ever got fired for buying Microsoft"---well it's about time they did!) together with lack of deep domain-specific expertise in computing on some (but certainly not all) procurement teams.

These factors create a genuine barrier to entry for suppliers of truly innovative software and other computing services, including our members in the Australian FOSS industry.

5.9. Specialist field

OSIA welcomes and endorses DTA's finding that ICT procurement in government has "moved towards more generalist procurement skills". We fear however that DTA's proposed solution (providing training and learning opportunities, which we read as providing computing training & learning opportunities to procurement professionals) is likely to fall well short of the mark---unless we have misinterpreted that statement.

Acquiring deep domain-specific expertise in computing is not something that comes from a series of short courses: it takes many years of experience to develop, after first acquiring a substantial core body of knowledge.

Agencies would be better served to fill ICT procurement roles by offering training in generic procurement principles to individuals who already have deep domain-specific expertise in computing, rather than vice-versa.

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[15] Burton & Holden, *op. cit.*, s. 2.3, p. 9.