Senate Select Committee on Financial Technology and Regulatory Technology

An inquiry into the current state of Australia's Fintech and Regtech industries

Supplementary Submission
Response to Questions on Notice

21 March 2020

1. Overview

Stone & Chalk welcomes the interest of the Senate Select Committee in the issues raised in hearings in Sydney, Melbourne and Canberra during January and February 2020. Further, we appreciate the opportunity to provide additional information, recommendations and case study examples from our broad startup and scaleup community on key topics.

The initial Submission Paper was prepared by Stone & Chalk working with and on behalf of its national community, consisting of over 250 resident technology companies, over 100 alumni scaleups and over 20 corporate partners across.

This Supplementary Submission incorporates an extensive outreach conducted to support depth of consideration to the recommendations.

Between appearing before the Select Committee and making this Supplementary Submission, Stone & Chalk conducted many one-on-one interviews, five focus groups and a series of surveys across the fintech and regtech startup/scaleup ecosystem. We have taken this approach as various questions taken on notice involve policy recommendations outside of fintech and regtech that have a material impact for Australia's entire startup and scaleup landscape.

Stone & Chalk released four surveys to assist with this Supplemental Submission which have so far had over 304 respondents in less than one week[1]. While some of the results are included in this Supplemental Submission, given the tight timeframe to respond to Questions on Notice, Stone & Chalk would welcome the opportunity to provide additional case study materials reflecting survey and focus group results at a later stage.

Upon appearing before the Senate Committee, Stone & Chalk was asked to provide further information on a range of topics which requested by various committee members and taken on notice.

The following are the topics which Stone & Chalk was asked to provide the Committee with further information.

1. **Early-stage investment:** How can Australia improve the quality and quantity of available investment at seed stages for startups and scaleups. This incorporates recommendations regarding ESIC and ESVCLPs.
2. **Procurement:** Recommendations relating to the implementation of appropriate government procurement frameworks which are tailored to buying from startups and scaleups.
3. **Four Pillar policy:** Recommendations regarding Australia's Four Pillars Policy.
4. **Regulators competition mandate:** Recommendations relating to introducing a Competition Mandate for Regulators.
5. **R&D Tax incentives:** Recommendations relating to new R&D Tax Credit legislation.
6. **Lifelong learning programs:** Recommendations relating to ways in which programs enabling lifelong learning can help workers retrain and transition into emerging industries and jobs in Australia.

[1] https://www.stoneandchalk.com.au/senateenquiry

2. Executive Summary

This supplementary submission reflects both the views of Stone & Chalk as well as our residents, alumni, corporate partners and various other stakeholders, together with investors, mentors, founders and subject matter experts within the wider startup and scaleup landscape in Australia.

To provide context for the responses to the Questions on Notice, this supplementary submission opens with a description of the strategic challenge that Australia needs to tackle in order to maintain global competitiveness through the Fourth Industrial Revolution and the related economic headwinds of transition. There is a clear need to adopt McKinsey's three horizons of growth model[2] to foster emerging new businesses and seed future models rather than focus solely on defending and expanding current core businesses.

We make the following recommendations against the six areas of Questions on Notice.

Recommendations

1. Early-stage Investment	
1.1	Invest in programs to provide education for potential early-stage investors and create best practices frameworks
1.2	Change the measure to be considered a sophisticated investor for ESIC scheme purposes, from a wealth-based test to an education-based test
1.3	Implement a viable and competitive Collective Investment Vehicle (CIV) for investment into a single startup as soon as possible
1.4	Increase the incentive levels for ESIC generally, and for retail and sophisticated investors
1.5	Simplify the criteria and application process for ESIC
1.6	Replace the existing ESIC Eligibility criteria
1.7	Drive awareness for ESIC
1.8	Communicating the revised ESIC scheme
2. Procurement	
2.1	Enhance education and Awareness for Government and Procurement teams
2.2	Implement a multi-stage approach to startup engagement, typically incorporating engagement stages such as Proof of Concept, and Trial, prior to full commercial deployment
2.3	In addition to budget commitment, implement a 'buy local' policy, which would support a greater degree of focus and opportunity for local ICT solutions, this would partly help to address this imbalance
2.4	Implement appropriate incentive structures and performance tracking measures to allow for changing in processes and behaviours
2.5	Establish an Industry Advisory Panel for startups procurement

[2] https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-the-three-horizons-of-growth#

3. Four Pillars policy	
3.1	The Four Pillars policy should be expanded to cover the largest six banks to prevent further accumulation of market power as well as add the largest two insurers. This effectively means the Four Pillars Policy becomes an Eight Pillars Policy (see Recommendation 3.4)
3.2	Divestment criteria needs to be considered should any single institution on an aggregate level exceed a market share in any subsector of financial services greater than 35 per cent
3.3	Any of the big six banks are prevented from owning or controlling more than 15 per cent of any other financial institution including neo-banks
3.4	Australia's largest insurers should be added to the Pillars policy, given capital ratios, liquidity requirements and the significant changes to risk profiles which remain largely unquantifiable due to factors such as climate change, the onset of widespread automation and artificial intelligence
4. Regulators competition mandate	
4.1	The Government stipulate the specific KPIs it wishes ASIC and APRA to achieve in relation to its competition obligations and expectations
4.2	The Government stipulate acceptable operating service levels for ASIC and APRA in relation to their competition mandates.
4.3	The Government ensure that regulators such as ASIC and APRA fully integrates this new competition obligation through staff training, decision making processes and outcomes reporting
5. R&D Tax Incentives	
5.1	The R&D expenditure threshold to remain at $100 million to ensure funding is available for startups and scaleups
5.2	Agree the R&D expenditure threshold be a permanent feature of the law
5.3	Agree with new proposal – R&D entities with aggregated turnover of less than $50 million are generally entitled to an R&D tax offset rate equal to their corporate tax rate plus a 13.5 per cent premium. However, turnover threshold to be increased to $50 million in line with Governments existing definition of a small business
5.4	There should be no caps placed on entities with less than $50 million annual turnover. Recommendation is for NO CAP to remain
5.5	No intensity premium. Stone & Chalk recommends a 20 per cent non-refundable startup and scaleup collaboration premium in its place which provides far greater economic benefits

6. Life-Long Learning	
6.1	Extend programs that build adaptive skills and shift mindsets for industry to address new and unprecedented challenges that will shift mindsets quickly and bring innovation to a highly competitive and challenging landscape
6.2	Build an enduring, transferrable and universal lifelong skills framework that points to employability applied through the entire education system that reflects continuous industry demands. This framework outlines complex human capability and development pathways
6.3	Build programs to address skills gaps within emerging technology startups and scaleups
6.4	Map industry cross skilling (transition) programs – pre graduate level to extending across working life

3. What is the strategic challenge Australia needs to tackle?

The purpose of this section is to provide some greater awareness to the broader issues Australia and Australians are already beginning to face due to the advent of Industry 4.0 and the role government and all elected representatives must play in preparing Australia for these likely realities.

These are factually observable and reported realities:

1. Globally, industries are continuing to mesh together with traditional boundaries melting away and new clusters forming causing further consolidation of firms globally and domestically.

2. Together with the adoption of automation, job displacement has the potential to cause unprecedented social and economic upheaval in Australia and across the world.

3. Custodians of capital such as private equity, listed funds and Super/Pension funds globally are already desperate for quality investment opportunities and need more quality companies to invest in.

4. It is clear globally and acknowledged by many governments world-wide that early stage businesses, specifically high-growth technology companies such as startups and scaleups are the largest contributors to skilled jobs growth as they scale into large companies.

Whilst Australia has produced some notable examples of globally successful high-growth technology based company's over the last decade, the speed at which startups and scaleups are succeeding in Australia needs to be accelerated to provide the companies to invest in along with the jobs for the millions of Australians that will need to transition their careers, be entering and/or re-entering the workforce over the next two decades.

Unfortunately, current as well as proposed legislation before parliament has failed to adequately consider this emerging reality.

This has the very real potential to result in a significant missed opportunity for Australia which has the potential to leave Australians worse off in both the short and long term.

Utilising McKinsey's Three Horizons of Growth

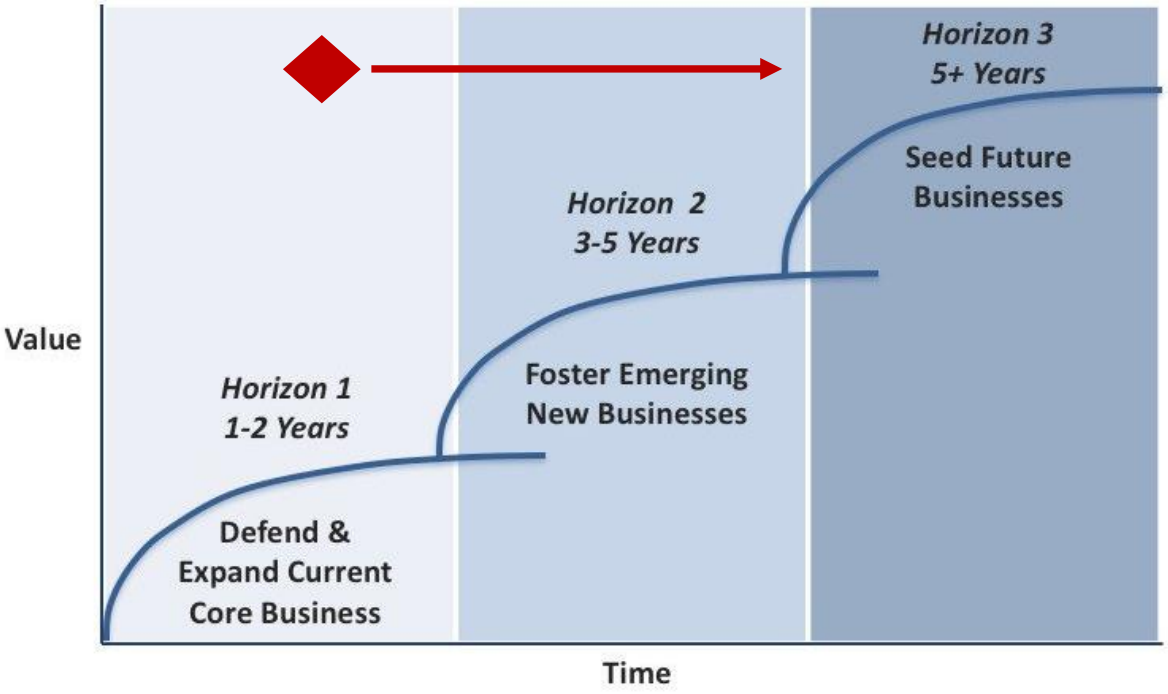
McKinsey's three horizons of growth model[3] is a good tool to very simply illustrate what new policies, regulation and legislation must do for.

For too long, Australia has been and still is stuck in horizon 1, or what is commonly referred to as "milking the cow". Growth came relatively easy by global standards, most of Australia's industries are dominated by oligopolistic incumbents which have been largely sheltered from international (and domestic) competition.

[3] Horizon Three - Create viable options
https://www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/enduring-ideas-the-three-horizons-of-growth#

These incumbents have been consistently “squeezed for yields” to provide short-term returns to super funds and shareholders funding a large retiree base.

The unintended consequence of this vicious circle where short-term investor pressure is making it very difficult for many large publicly listed companies to move out of horizon 1.



Given that it is highly unlikely that this cycle will change in the short to medium term, Australia, like many smart nations like Singapore, the UK, Canada, the US and Israel must rely on the creation and commercial success of high-growth technology based startups and scaleups to provide the jobs, wealth creation and increased tax receipts to absorb these significant macro and microeconomic shifts.

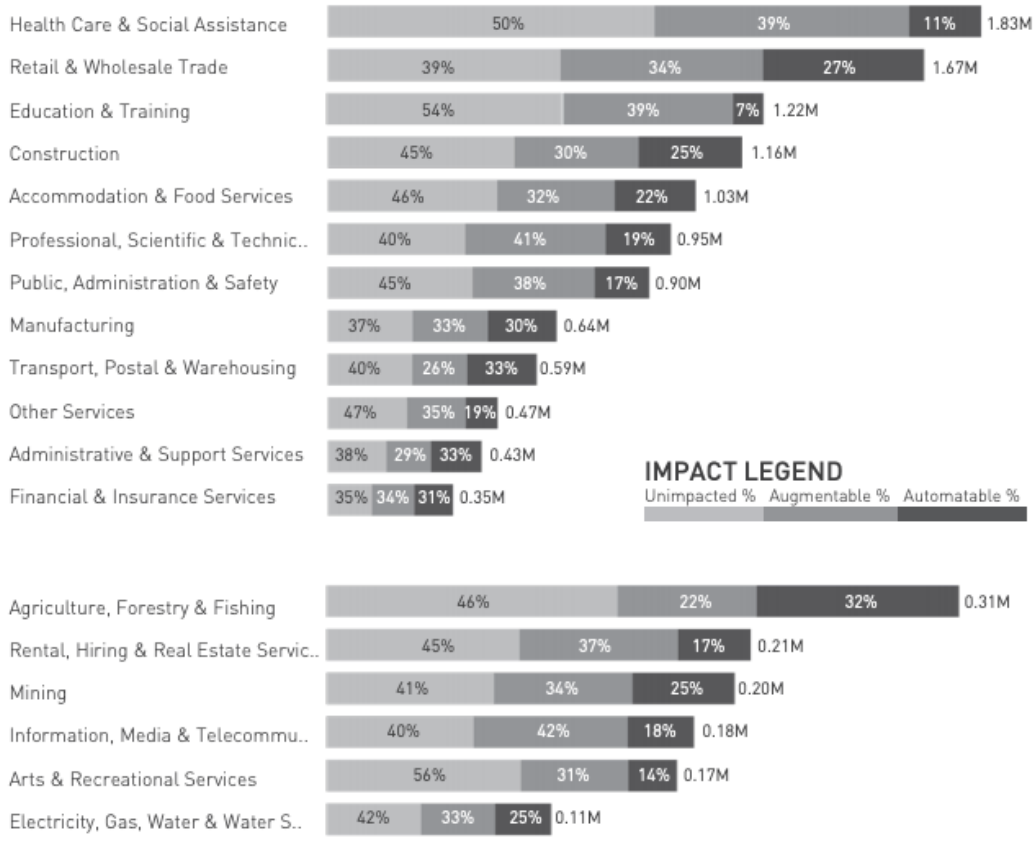
Deliberate, disciplined and coordinated action must be taken to address these systemic failures within the Australian economy. Australia, and therefore all levels of government, needs to maximise its focus and incentive structures in horizons 2 and 3.

Not only will this transition amongst the ASX 200 inevitably occur, this type of renewal is critical for Australia’s future.

According to a recent report in March 2020 by Faethm in conjunction with the Australian Computer Society[4], Faethm predict that by 2034, automation will displace 2.7 million Australian workers which represents 21 per cent of the workforce and that technology will augment 4.5 million Australian workers leading to a 15 per cent capacity uplift to Australian businesses.

As part of this analysis, Faethm have provided a breakdown of estimates in the diagram below:

[4] https://www.acs.org.au/insightsandpublications/reports-publications/technology-impacts-on-the-australian-workforce.html



Source: Technology impacts on the Australian Workforce, Faethm (2020)

Approximately, 350,000 workers in financial services alone have been predicted to be impacted. Of this number Faethm is already predicting that 108,000 jobs are at risk of complete automation over the next 15 years, 58 per cent of which are currently held by females.

The below diagram provides further detail behind these predictions within Financial services and Insurance.

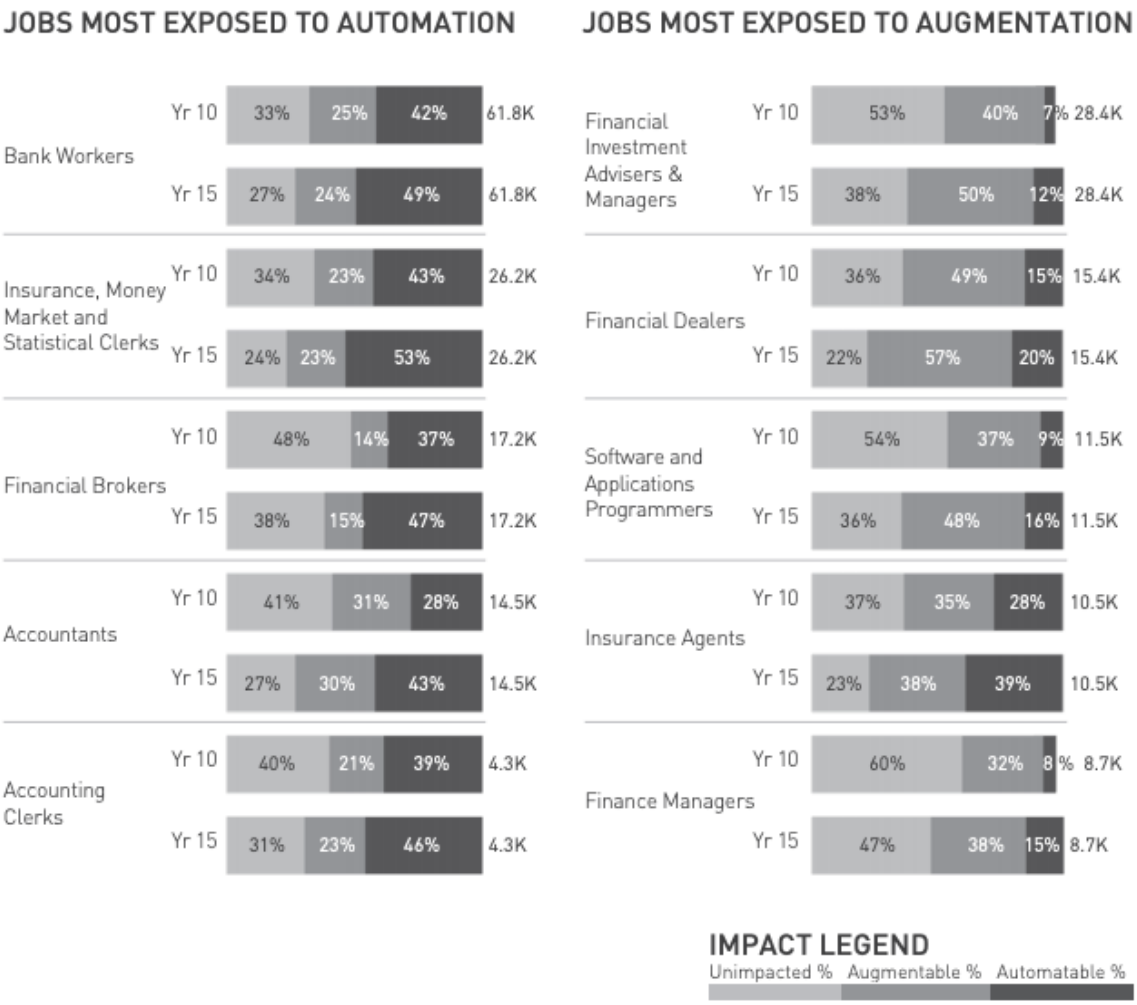
Therefore, the problem is whether Australia can create the new technology-based companies and subsequent jobs ahead of the decline of the cash cows currently being squeezed and the job losses that “doing more with less” demands.

It is in this context of Australia’s broader economic and social needs that Stone & Chalk shares both its observations and recommendations. Education and re-skilling the workforce will be crucial to prevent long term structural unemployment and rising inequality.

Whilst the scope of this Senate Select Committee inquiry is focussed on improving the success of the fintech and regtech sectors, what Australia needs most is a national strategy which articulates our aspirations and objectives for the type of country we want and need to become in order to provide alignment across all levels of government.

This would also provide the important signal to the private and education sectors in terms of where the government is focussed in terms of the strategic direction and framework for Australia’s future.

Such clarity would naturally provide significant direction for changes to policies, laws and regulations needed to advance Australia's future.



Source: Technology impacts on the Australian Workforce, Faethm (2020)

4. Responses to Questions on Notice

1. How can Australia improve the quality and quantity of available investment at seed stages for startups and scaleups?

5.1.1 Background

The Australian Government has a significant role to play in stimulating the early-stage investment landscape. We need the Government to lead the way in actively encouraging a huge culture shift towards growing the risk appetite for equity investment in technology startup/ scaleup in Australia. We should be looking to best practices in other countries - not just to follow their lead with what works, but rather create next best practice.

Australians overall are more risk-averse than our overseas counterparts in relation to investing in early-stage technology startups and scaleups. This means that in order to compete on a global scale we need to over-extend on programs and incentives to encourage these types of investments. It's not enough just to match, we need to do better to catch up.

There are many key challenges that were consistently raised from our community, that highlight both the urgency of addressing these issues and the benefits to our investment landscape to be gained if they were addressed. In terms of improving early-stage investment outcomes, we have found that the key challenges are:

- **Education**: In particular for investors but also for early founders. There is a gap in the market which is creating an unnecessary barrier to investment.
- **Risk culture:** Australia is consistently considered highly risk-averse and nearly all survey and focus-group participants raised this as an area that needs to be addressed.
- **Policy structure:** The unique features of Australia's current policy typically leads to the introduction of complex concepts and structures.

We address our response in three parts:

1. Improving the Quality and Quantity of Angel investment
2. ESICs
3. ESVCLPs.

Notably, the key challenges of education, risk culture and policy structure are recurring elements of our recommendations (across all three parts).

5.1.2 Improving the Quality and Quantity of Angel investment

It is encouraging the Government sees the overwhelming need to stimulate the early stage investment landscape in Australia. We need to act now. The desire to invest exists, however the environment can be intimidating and confusing, particularly for newcomers. It is evident that Australians are exceptionally limited in their experience, competence and capacity to invest in startups and scaleups.

From our survey data a clear pattern became evident:

- The majority of founders expressed negative feelings and discontentment with the current availability of investment and quality of investors.
- The majority of investors expressed disappointment with current policies and overall support for their endeavours. Many participants said they are not surprised that everyone in their network who could invest, simply does not as it is too difficult.

The Government must act quickly, comprehensively and boldly to change this.

Our recommendations centre around the key theme of shifting the risk appetite of Australian investors. It is vitally important that Australians understand these opportunities are available to them and are encouraged to take them.

> *"Finding individuals/organizations who were genuinely prepared to acknowledge and accept the risk involved in investing in startups and early stage companies was the most difficult part."*
> *- Terry Buckley, Founder, Lakeshore Data*

Recommendation 1.1: Invest in programs to provide education for potential early-stage investors and create best practices frameworks

- Provide funding to organisations who have the knowledge, expertise and capacity to conduct education programs for early-stage investors. These organisations should ideally be not-for-profit with a clear purpose to help build the startup/ scaleup ecosystem.

Overwhelmingly the most prominent theme across both investors and founders was the need for education. Investors need to understand what's involved and best practices before feeling confident enough to invest. On the other side, founders were clear in their frustrations with inexperienced investors.

> *"Australian investors need to be educated and incentivised, they have very little understanding of seed and angel investment opportunities"*
> *- Mark MacLeod, CEO, Roll-it Wealth*

> *"They generally lack specific industry sector knowledge and lack an understanding of what an early stage business should look like. They tend to try to make it look like a big business because that is their comfort zone."*
> *- Barry Westlake, Founder, Brumbee Australia*

Recommendation 1.2: Change the measure to be considered a sophisticated investor, from a wealth-based test to an education-based test

- Certify courses provided by these organisations that meet certain requirements, such as providing an overview of different business models, and frameworks for investing.
- Consider setting up accreditation of organisations providing certified courses. Appropriate funding could be targeted at such accredited organisations.
- If an investor has taken a certified course that ensures they are properly educated on the risks and best practices, then they are considered a sophisticated investor for the purposes of ESIC. This doesn't remove the need for independent financial advice as it relates to personal circumstances.

The Government urgently needs to address the issue of Australia's risk appetite compared to many developed countries such as the UK, US, Singapore. We need policies that lead to a paradigm shift increase in equity investment in startups and scaleups rather than the current approach which is regarded in the industry as incremental and restrictive.

> *"If you want a massive increase in angel investment, you need to start with education. We need education so people don't hurt themselves, not restrictions. Why stop them, if they have received some objective information around investing?"*
> *- Richard Dale, Sydney Angels*

Recommendation 1.3: Implement a viable and competitive Collective Investment Vehicle (CIV) for investment into a single startup as soon as possible

One of the most important things the Government can do is to provide a simple affordable flow through special purpose legal vehicle structure to accommodate a syndicated investment into a single startup.

> *"Angel investing is high risk. Smart investors need to spread their risk with at least 22 investments over two years. So they invest small amounts in groups or syndicates. But, startups need a single entity on the cap table to avoid nearing the 20 investor threshold where regulatory complications come in, and more importantly, because too many investors on the cap table will create a barrier to further fund raising as VCs do not like to see too many shareholders to manage on the cap table."*
> *- Andrea Gardiner, Jelix Ventures*

At the moment there is no viable way of doing this without incurring huge costs to the investors and complex regulations. These complex structures often also involve time-consuming activities that take up the investors time. Time which would be better spent on helping the startups they invest in.

Currently there is no viable way of doing this without incurring significant costs to the investors and complex regulations. These complex structures often also require time-consuming activities by the investors – time which would be better spent on supporting the investee startups.

The current options are:

- **A unit trust:** While this is the most appropriate, but it is far too expensive to house a dormant investment ($30,000-$60,000). Unit registers need to be kept and maintained, tax returns must be lodged every year (cost ~$2,000) and exit is expensive.
- **A series of bare trusts for each investor in the syndicate:** The stamp duty of $500 (per investor) to register each bare trust makes this prohibitively expensive; and
- **A nominee company:** Very expensive ($30,000) to establish and a specialised vehicle which requires expert legal advice.

Government should ensure a CIV has the following features:

- No tax return required to be lodged unless there is activity during that tax year, for example a follow-on investment, exit and the like.
- Investors can access ESIC tax benefits relating to the investment through the vehicle.
- No Australian financial services licence required for a private group of individual investors to invest through the new vehicle.

5.1.3 Required improvements to the Early Stage Innovation Company (ESIC) Scheme

Overall, we believe that establishment of the ESIC scheme was a step in the right direction. The concept of providing tax benefits to investors who invest in early-stage businesses is the right concept. The effectiveness of such programs is demonstrated by the UK and Israel. However, what was originally proposed to the Treasury and the government, modelled largely on the UKs Seed Enterprise Investment Scheme (SEIS) is very different to what was finally implemented through the ESIC scheme in Australia.

It is not surprising therefore, that ESIC has underperformed on expectations for investors, startups, scaleups and government.

It is Stone & Chalk's experience, which is strongly supported by our internal and external communities, that the two main reasons for this are:

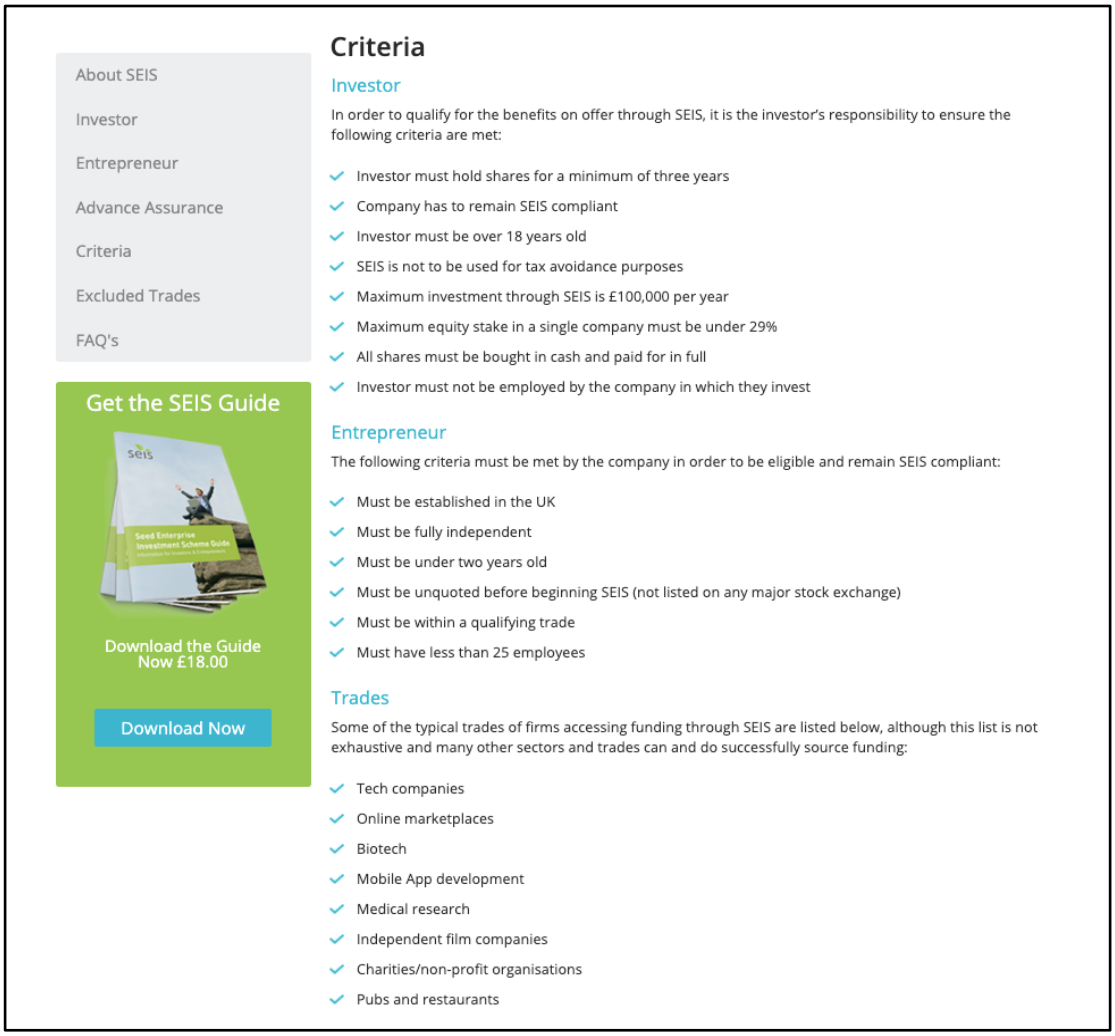
1. Complex eligibility criteria and
2. Low levels of incentive for investors.

The current level of complexity is causing a great deal of uncertainty in the market. This uncertainty is translating directly into increased risk-aversion. The uncertainty relating to ESIC eligibility for startups and scaleups needs to be removed as an urgent priority.

To illustrate the complexity issue, it is useful to make a comparison between the criteria for determining eligibility between the UK's SEIS and Australia's ESIC. The eligibility requirements for SEIS can be clearly explained in a single page with six bullet points for entrepreneurs to determine if they qualify (see image below).[5]

[5] SEIS Criteria [Source: https://www.seis.co.uk/about-seis/criteria]

Once a company has determined they meet the criteria listed here, they can immediately proceed to the application process. No further self-assessments required.



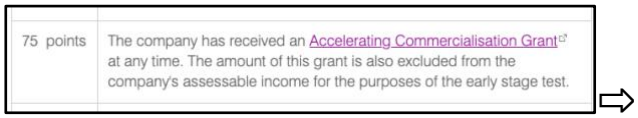
In order for an Australian company to determine if they are eligible for ESIC, it is necessary to visit Australian Tax Office (ATO) website and locate the 'Qualifying as an early stage innovation company' webpage which is several pages long and comprises many different sections. Walking through each step it is clear that in order for a company to properly self-assess they may have to visit and interpret up to eight different policy web pages on four different websites (ATO, Business.gov.au, Australian Securities and Investment Commission (ASIC) and IP Australia), that are linked to on the webpage.

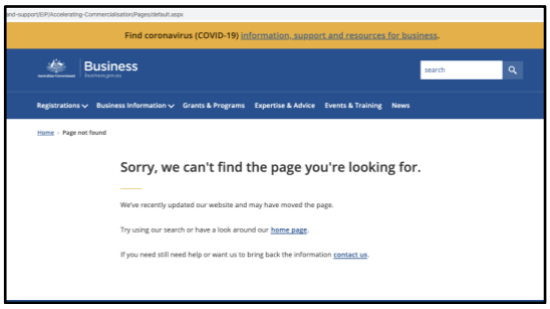
For example, a company reviewing the requirements may find they have to:

- Visit the ASIC website, when determining if they meet the early-stage test requirement that a company is incorporated or registered in the Australian Business Register',
- Visit the ATO's eligible notional deductions webpage, when determining if they meet some of the requirements within 100-point test,
- From the eligible notional deductions page, they then need to understand and become a R&D entity if they aren't already, which would involve many more pages of research,

- Have to visit the Accelerating Commercialisation Grant information on the Department of Industry, Science, Energy and Resources' website to determine if they are eligible,

  [Note: It is clear that maintaining clarity on this information is difficult for the ATO themselves, as that link is currently broken and leads to an error:]





- Have to visit IP Australia website's patents page, when determining whether the company has enforceable rights on an innovation,

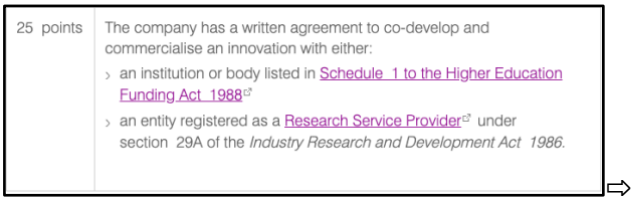
- Have to visit IP Australia website's plant breeder's right page, when determining whether the company has enforceable rights on an innovation,

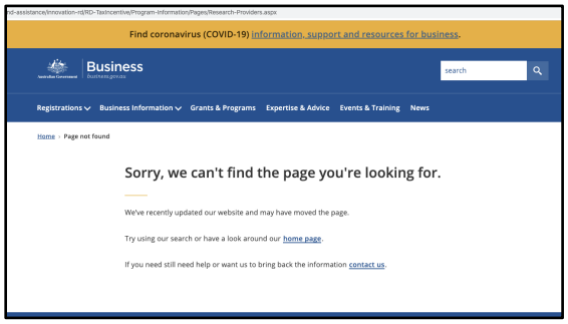
- Have to visit IP Australia website's design right page, when determining whether the company has enforceable rights on an innovation,

- Visit the Federal Register of Legislation website and find Schedule 1 in a 232 page document, when determining if they are co-developing and innovation with an institution or body listed in Schedule 1 to the *Higher Education Funding Act 1988*, and

- Visit the Business.gov website, to determine if they are co-developing an innovation with a Research Service Provider under section 29A of the *Industry Research and Development Act 1986*.

  [Note: Once again here we find a broken link, further confusing the process:]



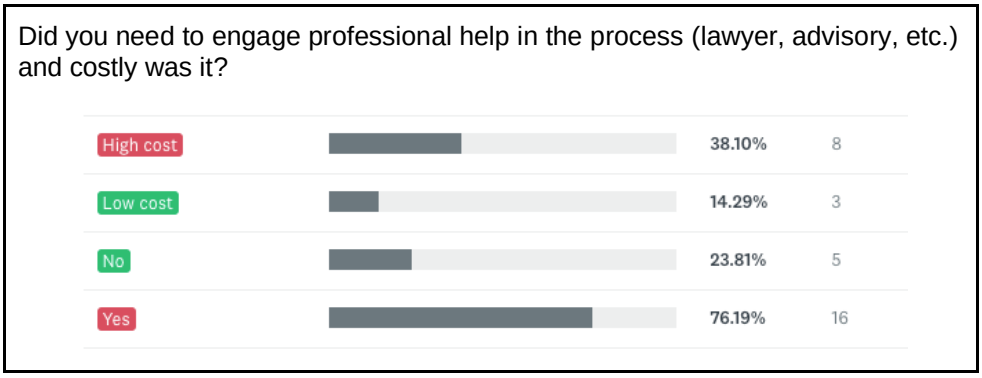


Even excluding the large number of documents and broken links, the sum of the content that founders may be required to read to complete this process is over 4,500 words. For some, this process was easy because they met two of the requirements and were able to satisfy the requisite 100 points quite quickly and easily, but for many others, this process is long, confusing and extremely frustrating.

"I've lost hours and days of my life trying to understand ESIC in order to be able to say yes I think I'm certified"
- Pascale Helyar-Moray, Founder, Super-Rewards

Despite the differences in time spent, all have reported that the process involved a costly lawyer and/or accountant.

When we asked our survey participants if they had to hire a lawyer or accountant to complete the process and what the costs were, we identified this was a significant barrier.



We should not be creating a system where our innovation companies are spending large amounts on legal or accounting fees in order to obtain early-stage investment.

"My accountant sent me a $1,200 invoice for the work, so I presume he spent most of the day on researching it."
- David Finlay, Founder, Moisture Plant

Furthermore, there are significant issues with using the criteria listed in the 100-point test. These criteria not only create complexity, they are also not necessarily applicable for early-stage companies.

For example:

50 points	One or more third parties have previously paid a total of at least $50,000 for the issue of new shares in the company.

Yet it is unlikely that an earlier investor would make an investment (which is arguably riskier) without wanting to take advantage of the ESIC benefits. The criteria suggests investment must be obtained without offering any tax benefits in order to seek investment from investors that want a tax incentive.

Another example of where the 100-points criteria falls short is with regards to the patents and design rights which take time and money to secure. It is unrealistic to expect that an early stage startup will be able to secure a patent or design right without any funding first. Furthermore, it is worth noting that many of the most successful technology companies do not own any patents, and the ones that do did not necessarily obtain them at the early stage.

Investors need certainty in these benefits in order to be able to take the risk on the investment.

Our recommendations for improvements to ESIC fall into three main areas which are analysed further below:

1. Better benefits - Increase the investment cap for retail investors, provide higher tax offset, and allow loss relief against income tax liabilities.

2. Simplify the criteria and self-assessment process.

3. Invest in better awareness of ESICs being available to investors across Australia as incentive to drive increased investment and uptake of benefits and fix the negative perception.

Recommendation 1.4: Increase the incentive levels for ESIC – generally, and for retail and sophisticated investors

> *"The early-stage tax incentives are terrible, there's no incentive for investors to take money out of their savings account and put it into a risky business."*
> *- Josh Theeuf, Founder, MoneyLoop*

Stone & Chalk makes the following specific recommendations regarding changes to ESIC.

Overall

1. **Losses to be eligible as a direct deduction.** For example, if an investor loses $100,000 on investment, then they are eligible to claim $100,000 as an expense.

2. **Removing the 'affiliate' component of the test.** The fact the cap applies to an investor and their affiliates could create instances where unbeknownst to the investor, their affiliate has also invested in an ESIC – in which case the legislation has no way to deal with how the cap applies between them. If removed and an affiliate does invest in an ESIC, it's the affiliate that gets the non-refundable tax offset, so not an issue from a tax policy point of view.

3. **Introduce and promote a national register for ESICs** which states which years they are an ESIC, whether self-assessed or ATO ruling. Can be clear that those on the register, where self-assessed, may be found to be ineligible upon an ATO review.

4. **Widen eligible investors** to include widely held companies with less than $50 million annual turnover.

5. **Change s.360-40(1)(a) and (b)** such that instead of reading "(the latest being the current income year)" to "(the latest being the previous income year)".

6. **Lift the prior year assessable income cap** under s.360-40(1)(c) from $200,000 to $1,000,000.

7. **Use ordinary instead of assessable income.** Alternatively, instead of using assessable income as the test, use ordinary income so that sale of assets, grants and other extraordinary income don't count toward the limit.

8. **Consider broadening the AC grant exclusion** under s.360-40(2) to include any grant funding received from an Australian Government (such that government grant funding does not contribute to the assessable income test).

9. **Consider tightening up the points criteria** such that item 6 and item 7 of s.360-45 include the following "did not acquire those rights primarily to assist the entity to become entitled to a * tax offset (or a modified CGT treatment) under this Subdivision;".

Specific for Retail Investors:

1. **Increase the $50,000 investment cap to $200,000** per annum for retail investors.

2. **Remove the invalidation clause.** Any amounts above the cap do not attract the tax offset, but do not invalidate the offset for amounts below the cap.

Specific for Sophisticated Investors:

1. **Introduce an investment cap to $1,000,000** per annum for sophisticated investors (instead of capping the tax offset amount – see below).

2. **Income tax offset amount is graduated.** Tranche 1 is 50 per cent on the first $200,000 in line with retail investors and 20 per cent for the remainder capped at $1 million per annum.

   In other words, the maximum benefit that a sophisticated investor can receive is $260,000 (200,000 x 50 per cent = 100,000 then 800,000 x 20 per cent = 160,000 so total max benefit is 260,000 (100,000 + 160,000).

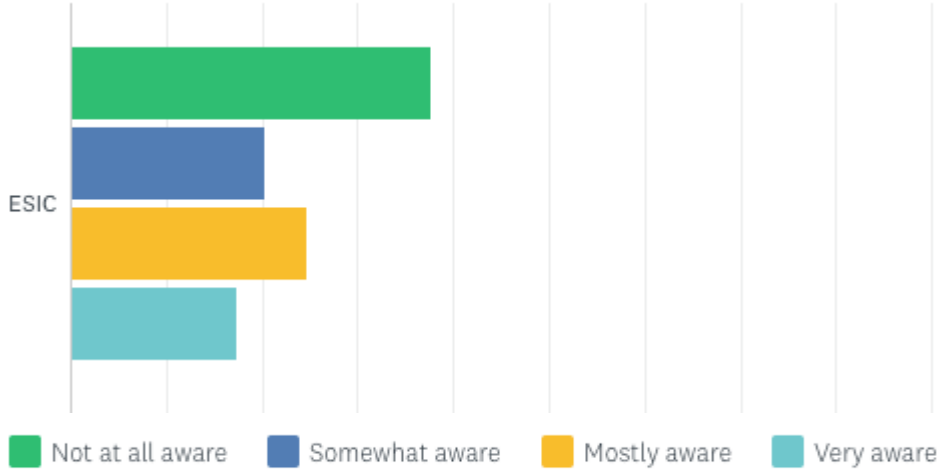
Proposed Tax Incentives Structure for Investors (on ESIC Companies)

	Retail	Sophisticated
Max investment amount benefits can be claimed on	$200,000	$1 million
Tax offset amount	50 per cent	50 per cent on first $200,000 20 per cent on remaining $800,000
Capital Gains Tax Exemption	100 per cent (1-10yrs)	100 per cent (1-10yrs)
Loss write-off - Income Relief	100 per cent (of the remaining amount after the offset amount)	100 per cent (of the remaining amount after the offset amount)
Capital Gains Reinvestment Relief	50 per cent	50 per cent

Recommendation 1.5: Simplify the criteria and application process for ESIC

From our survey data and conversations with founders and investors in the Stone & Chalk network, it became clear that one of the biggest hurdles was understanding the process.

How aware are you of the following program, in terms of how it works, who it's for, and the process for applying?



	NOT AT ALL AWARE	SOMEWHAT AWARE	MOSTLY AWARE	VERY AWARE	TOTAL
ESIC	37.68%	20.29%	24.64%	17.39%	

"The process to become ESIC certified was very difficult. I had my accountant spend many hours researching, and I'm still not convinced he has the right outcome."
- David Finlay, Founder, Moisture Plant

Recommendation 1.6: **Replace the existing ESIC Eligibility criteria**

> *"We need clarity about certification. Advisors and accountants demand the ATO process. But I have read that they don't want to be involved and have been told by the ATO "no need".*
> *- Eric Ranson, Founder*

For companies

- Replace the current 100-point self-assessment and principles-based test with a simple list of easy to confirm criteria, such as:
    - The company must have been incorporated or registered in the Australian Business Register
    - Age of company must be less than five years
    - The company's equity interests are not listed for quotation in the official list of any stock exchange, either in Australia or a foreign country
    - The company (plus any wholly owned subsidiaries of the company) must have total expenses of $2 million or less (inc. $0) in the previous income year
    - The company must not have an ordinary income of greater than $1 million in the previous income year.

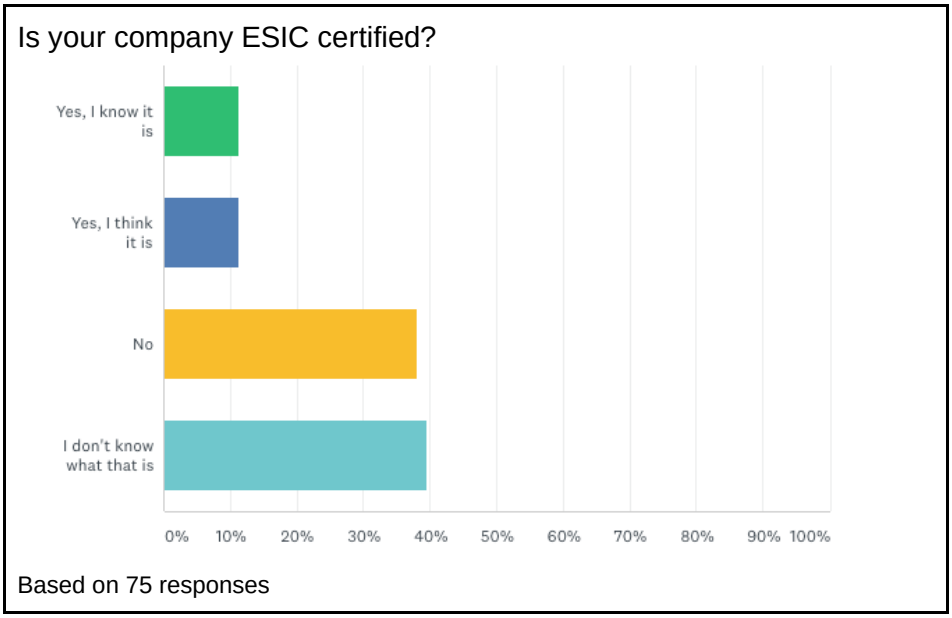
For Investors:

- Develop a simple guide that is the trusted resource for steps to become qualified.
- Provide investors with certainty their investments qualify by having a simple application process approved by the ATO within four weeks.

Recommendation 1.7: **Drive awareness for ESIC**

This recommendation relies on the other two areas mentioned above to be resolved first.

In our view, ESIC is poorly perceived and are not well known to startup companies or investors outside the major cities of Sydney and Melbourne. When asked in a focus group of five technology founders in Adelaide, not one had any knowledge of ESIC. The data collected in our survey also showed this issue:



Recommendation 1.8: **Communicating the revised ESIC scheme**

If underlying issues are addressed, it will be important to ensure there is wide-spread knowledge of the changes to rebuild confidence and ensure uptake.

- Partner with local organisations that work closely with startups to provide them with the support that they need to spread the word within their network, such as through sponsoring events and providing funding for resources to be developed.
- There should be more transparency and reporting on ESIC take-up to improve awareness of the scheme (and as a way to check whether it is operating effectively).
    - For example, for the ASIC Regulatory sandbox, ASIC maintains a public list on their website of companies benefiting from the licence exemption.

5.1.4 – Early Stage Venture Capital Limited Partnerships (ESVCLPs)

Many members of the Stone & Chalk community provided feedback on this topic. With the limited time available, we have not been able to conduct a full analysis and formulate recommendations. However, the key points are shared for consideration by the Committee:

- There are a range of uncertainties and inefficiencies regarding VCLP and ESVCLP regimes (e.g. tax benefits on investments with value of greater than $250 million).
- Consider reducing the minimum size of the fund to encourage new investors.
- Clean up the zombie or inactive ESVCLPs in the market the ones who are kind of parked, inactive for whatever reason.
- Provide clarity and certainty on the framework for VCLPs and ESVCLPs and make them competitive with overseas counterparts.
- Standardise documents and make them freely available to reduce the cost of lawyers and accountant fees.
- Consider co-investment or matching new funds, found in other Government funded industry development and growth programs.

2. Recommendations relating to the implementation of appropriate government procurement frameworks which are tailored to buying from startups and scaleups

5.2.1 Background and current status

In the Federal Budget 2019-20, several of the Government initiatives are related to supporting small/medium businesses, strengthening Australia's cybersecurity, and fostering innovation in critical areas such as regulation, climate change, health, education and restoring the financial system. These are all areas where startups and scaleups provide a significant advantage by providing agile and innovative solutions.

A strong driver of economic growth is government procurement, and while this is widely recognised by the Government as a job creator, not many people understand the huge potential offered by procuring from startups and scaleups. Australian governments are trying to keep pace with other countries in opening up data and supporting digital government, but could increase their use of other levers, such as procurement expenditure.

Following the US example with the Small Business Innovation Research initiative (SBIR), the NSW Government is considering changes to its procurement rules to encourage its agencies to procure from startups. NSW Chief Scientist recognises that the Government must play an important role in being start-ups' first customer, as a way to stimulate the adoption of innovative technology – as companies tend to follow such moves from Government. He also recognises that a success factor is to have processes that are '*Startup Ready*'.

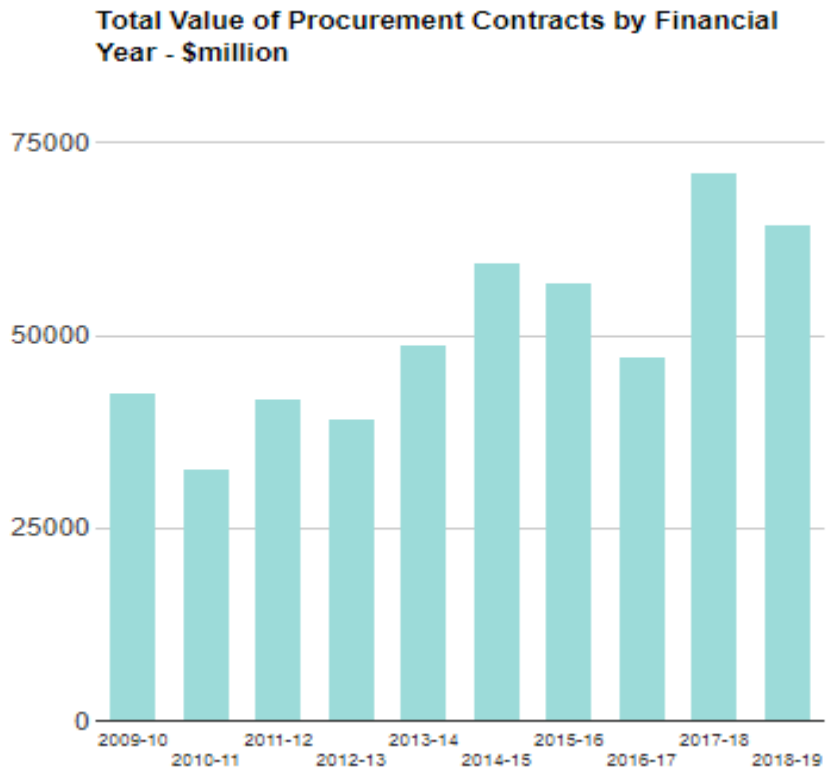
The initiative from the NSW State Government referenced in the recent Australian Financial Review article[6] also has the potential to encourage the Commonwealth to do the same and become more innovation friendly. According to the NSW advisory council leading the initiative, risks and expectations can be managed so Australia can realise the economic benefits of adopting innovation (such as investment attraction, job creation, entrepreneurial culture, social development and economic growth).

Innovation and Science Australia's 'Australia 2030: Prosperity through Innovation' report[7] mentions that National innovation can be stimulated by using government procurement as a strategic lever. Government spending on procurement is a significant market in Australia – for example, Australian Government procurement alone has grown from approximately $32 billion in 2010–11, to nearly $64 billion in 2018–19 (see graph below).

However, the spending through technology-focussed platforms such as the Government's Digital Transformation Agency (DTA) is a small fraction of the total Government procurement spending ($1.1 billion contracted through the DTA Digital Marketplace since 2016 versus $60+ billion per year overall).

Whilst a figure of $1.1 billion contracted through the DTA over four years might seem like a large amount, in reality the majority of it was labour hire only and while Government Departments are required to post opportunities through the DTA, it is the experience of the innovation sector that Government agencies are not required to procure through the DTA and can do so by other established means and channels.

[6] https://www.afr.com/technology/nsw-looks-to-boost-start-ups-with-procurement-changes-20200311-p54939
[7] Innovation and Science Australia, Australia 2030: Prosperity through Innovation, 2017 https://www.industry.gov.au/data-and-publications/australia-2030-prosperity-through-innovation



Source: Innovation and Science Australia, Australia 2030: Prosperity through Innovation, 2017
https://www.industry.gov.au/data-and-publications/australia-2030-prosperity-through-innovation

5.2.2 International comparison

The table below compares the Australian DTA to the UK equivalent marketplace for public procurement:

	UK Digital Marketplace	DTA Digital Marketplace
% of value contracted through the Marketplace awarded to SMEs	49 per cent	63 per cent
% of volume contracted through the Marketplace awarded to SMEs	71 per cent	49 per cent
$ contracted through the marketplace since 2016	~$10 billion (£5 billion)	$1.1 billion
Number of sellers on the platform	3.6k	2.1k

Source: Stone & Chalk analysis based on UK Digital Marketplace and Australian DTA Digital Marketplace data, https://www.digitalmarketplace.service.gov.uk/; https://marketplace.service.gov.au/

Although only 49 per cent of value contracted was awarded to SMEs in the UK platform, the number of sellers and the value contracted is significantly higher if compared with the Australian marketplace.

According to the Australian Business Research and Innovation Initiative, the 'Australia 2030: Prosperity through Innovation' report, the **Australian Government ranks just 70th out of 140 countries** on how well its procurement fosters innovation. In addition, SME participation in government tenders, when measured in respect to contract values, is steadily decreasing, from 39 per cent in 2011–12 to 24 per cent in 2015–16.

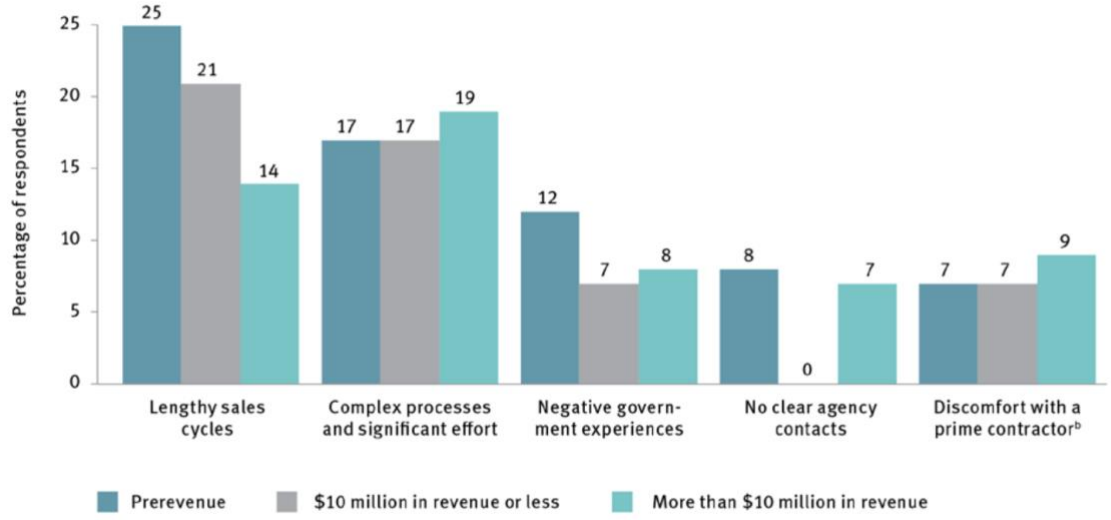
A summary of other international case studies and effective examples of Government procurement utilising startups and scaleups is set out in the next section.

5.2.3 What are the existing problems we know that have been validated by the survey?

Whilst there are innovation programs and grants designed to support and foster innovation, Government procurement processes make it difficult for the public sector to purchase solutions from startups and SMEs. The existing processes are designed to minimise risk and do not allow for innovative solutions to step in, causing a negative impact in Australia's economy and sending mixed messages to the market about adopting innovation.

The below example from a Boston Consulting Group[8] summarises the main barriers found by startups to contracting with Government:

Figure 22 Barriers to contracting with government reported by start-ups[a]



a Fifty-six start-ups answered the survey question 'What are the top barriers to contracting with the government?'
b Prime contractors often employ on government contracts.
Source: Boston Consulting Group and Eastern Foundry 2017, *Why startups don't bid on government contracts* ‹https://www.bcg.com/en-au/publications/2017/public-sector-agency-transformation-why-startups-dont-bid-government-contracts.aspx›.

[8] Boston Consulting Group and Eastern Foundry 2017, *Why startups don't bid on government contracts* https://www.bcg.com/en-au/publications/2017/public-sector-agency-transformation-why-startups-dont-bid-government-contracts.aspx

These challenges are aligned to Stone & Chalk experience in creating and facilitating innovation opportunities for startups and scaleups.

> *"One example from a startup in the health and wellbeing sector that tried to commercialise with the NSW Government (NSW Ambulance) confirms the complexities of securing a public contract. The founder went through approximately four years of work to obtain all approvals relating to budget, unions and the Department of Premier and Cabinet.*
>
> *Additionally, it is important to emphasise that the tender process comprises requirements that force startups to expose their intellectual property to their competitors in order to get qualified. After going through such costly and heavy work, the contract was put on hold due to changes in the executive team – with all the previous approvals being simply disregarded."*
> - *Name withheld*

Realistically, a company that has been in business for a year and has 12 months of funding remaining is not going to be looking to spend 24 months establishing a relationship with the government. The government must find a way to convince startups that they have a realistic chance of winning a contract within a relatively short period of time.

Contracting with the government is attractive to startups only if it can help them achieve their goals, which most of the times is related to:

- Earning recurring revenue
- Increasing valuation
- Finding market fit
- Raising capital.

Depending on how innovation-friendly and startup-ready a government can be, startups will carefully evaluate how pursuing a government contract can help or hinder their ability to achieve these goals.

At the federal level, one of the efforts to improve involved the announcement of a new ICT procurement framework aimed at benefiting SMEs.[9] The Australian ICT Procurement Taskforce surveyed eight Government agencies over four weeks to develop a framework, which aims to make the ICT procurement process consistent, efficient and easier for all.

The findings from Agencies confirm the complexity of the process, and the key themes are summarised as:

- There are too many panels, which increases the complexities of using them efficiently to select vendors.
- One size doesn't fit all: each agency is different; each procurement is different.
- Everyone welcomes the idea of guidance, but they do not collaborate outside their agency.

[9] Australian Government, Digital Transformation Agency, ICT Procurement Taskforce https://www.dta.gov.au/help-and-advice/ict-procurement/digital-sourcing-framework-ict-procurement/ict-procurement-taskforce-report

- There is a sense that procurement is very restricted, and ICT procurement is not understood as a specialist field.

The responsibility for acquisition and procurement is often spread across multiple departments or agencies, reflecting little insight into the big picture. It becomes visible that cultural issues such as risk aversion, lack of authority to make experiments and concerns about the compliance that govern the acquisition process are hindering the innovation opportunity with startups.

Therefore, it is clear that challenges on both sides exist and these are questions that Stone & Chalk knows all too well.

Stone & Chalk's experience in this subject was built over more than five years of work as a platform and marketplace for business innovation. Additionally, our startup and scaleup community have been surveyed to share their perspective on procurement processes with the Australian Federal and State governments.

From as early as 2016 Stone & Chalk became aware of the challenges that large enterprises faced in dealing with startups, resulting in the development and rollout of the Stone & Chalk 'Being Startup Ready' program in 2017. This was delivered as a series of workshops to our corporate partners, addressing seven key pillars to streamline corporate processes and getting the house in order for working with startups. The program assessed the companies' capability against best practices for the seven key pillars to become startup ready: Governance, Leadership, Information Technology, Procurement, Finance, Culture, Capability.

'Being Startup Ready' is now a mandatory part of the on-boarding journey for all new corporate partners, to ensure that they can maximise the opportunity from being part of the Stone & Chalk ecosystem and working with startups. This has helped to realise a substantially greater number of startup/corporate commercial outcomes across the Stone & Chalk ecosystem.

As an example of improvements on procurement efficiency, we have a partner (bank) where the Procurement department actively engage startups to scope potential opportunities for the company (instead of waiting for startups to approach them and pitch solutions). Additionally, they involve the procurement team very early on the negotiations of new projects (instead of only once the project is approved by the business unit). That allows the procurement team to add value in terms of suggested engagement formats and understand the possible ways the solution can solve the company's problem.

5.2.4 What we found from the survey and from our experience

From Stone & Chalk experience in working with both large corporations and startups/scaleups that have procured from the Federal and State/Territory governments, we strongly believe that there is a need to design and implement a "Fast track" procurement framework which incorporates tailored commercial and legal documents for commercially engaging startups/scaleups, is designed with tailored governance structures and policies regarding intellectual property rights which are relevant to the nature of the engagements.

It is our experience that such a "Fast Track" procurement process can be the success factor between a successful innovation project and a frustrating, costly and time-consuming attempt.

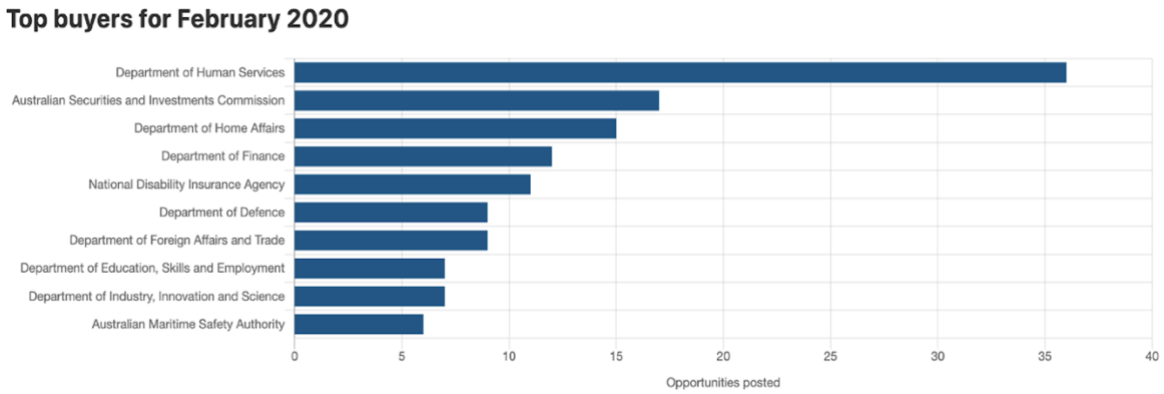
In our survey involving founders and partners, we were able to confirm and surface key information about the existing procurement activities involving Government agencies.

Startups have been trying to work with Government:

- Several startups and scaleup founders are trying to source innovative solutions to the Government, but only a small fraction have been successful so far.
- Most attempts were related to full production deployment contracts, as opposed to Pilots and Proof of Concept.

Digital platforms are not being used to their full potential:

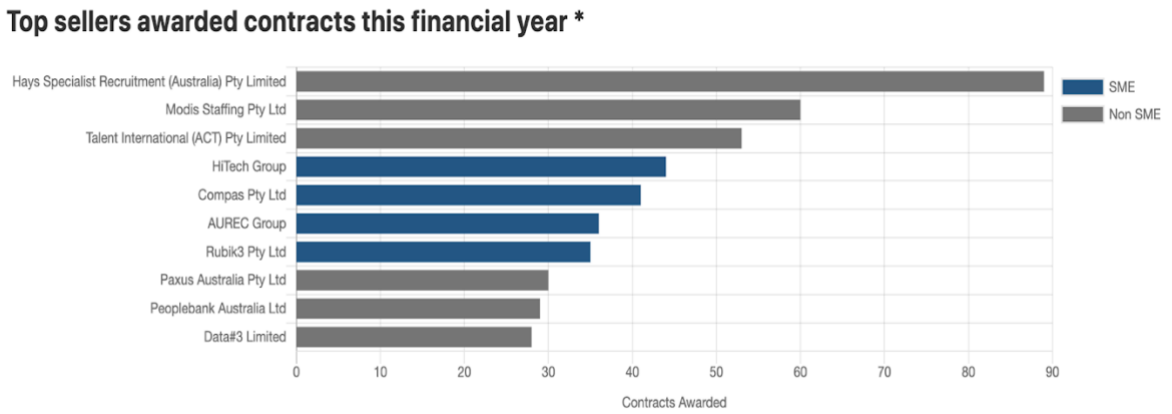
- Although there are digital platforms such as the DTA and the NSW e-Tendering Process, the process is still very time consuming and, in most cases, not financially feasible for startups. Steps such as being qualified as a vendor or connecting with the right people at the agencies can take from six to 12 months. Half of the surveyed founders could not complete their procurement process at all. Additionally, startups do not experience a fast-track or startup-tailored process even when trying to use Government digital platforms.
- The use of digital marketplaces and different criteria for procurement processes is not mandatory across the agencies. Additionally, there's little to no cooperation between agencies, which apply their own criteria for procurement decisions (often not using digital marketplaces such as the DTA).



Source: https://marketplace.service.gov.au/2/insights

From the above chart, it's clear that the largest agencies are not using the platform to procure technology. Given the fact that the Department of Human Services is the top buyer through the platform, this is aligned with the top seller's chart below where 80 per cent of the sellers are offering talent/specialist positions rather than products or services. Also, some of the largest agencies such as the ATO, CSIRO, Department of Health, AFP, ABC and others are not listed.

- As a result, the main companies winning contracts through the DTA are related to specialist / HR contracts instead of solutions that could be sourced from startups and scaleups.



Source: https://marketplace.service.gov.au/2/insights

From the 10 above companies, eight are focussed on managing personnel and recruiting processes (Hays, Modis, Talent, Compass, AUREC, Paxus, Peoplebank, HiTech). In other words, 8 of the top 10 firms successfully selling through the DTAs digital marketplace are providing contractor labour rather than providing technology.

If the data were to be made available regarding spend amounts by company, a further analysis could be made to understand the extent to which the digital marketplace is procuring services from startups, scaleups and SMEs.

This would provide greater insights and enable further recommendations and corrective actions to ensure the digital marketplace is meeting its intended objectives.

- ICT and SMEs are not prioritised among Public Procurement contracts

  According to the Department of Finance, ICT accounts for only six per cent of the total Public Procurement contracts ($3 billion from $62 billion). Additionally, **87 per cent of the total Procurement spending is concentrated on the top 10 government agencies/entities** – from which only six are among the top 10 buyers through the DTA platform.

2018-19 Procurement Contracts: Value of Top 10 Entities

	Total Value $million	% of Total Value
Total of top 10 entities	56,444.2	87.6%
Total of other entities	8,010.4	12.4%
Grand total of all entities	**64.454.6**	**100.0%**

Source: Department of Finance - Statistic from Australian Procurement Contracts

Although there are policies in place to try and support SME participation on public procurement (e.g. the Australian Industry Participation (AIP), that encourages full, fair and reasonable opportunity for Australian businesses to compete), SMEs often find themselves competing with large multinationals and established vendors for the same contract.

Frameworks such as the Commonwealth Procurement Framework ensures business are all treated equitably and are not discriminated against, for example, due to their size. However, what startups need to be successful is a process that accounts for their unique differences and advantages, ensuring they can navigate the process and are encouraged to offer solutions to Government.

	Large enterprises	SMEs
% of Government suppliers in 2018-19	15 per cent	84 per cent
Value of contracts awarded in 2017	$47 billion	$17 billion

Source: Department of Finance - Statistic from Australian Procurement Contracts

The numbers above correspond to 41 thousand contracts awarded to SMEs in 2018-19, from which only three thousand were awarded to Information Technology SMEs. The majority of the SME contracts are awarded to SMEs on the Administrative and Business Professional category (13,000 contracts in 2018-19). The majority of the contracts are concentrated with large enterprises, which have resources to endure the lengthy public procurement processes.

In addition, although there are plenty of statistics around the $ value awarded to SME's, no data is available about the duration of these processes (which can take more than a year according to founders).

- Low risk solutions are preferred:

  The main decision drivers are still related to risk reduction. Because of that, large ICT vendors are preferred, and startups often have to compete with multinational and established companies even for small tendering processes.

- Procurement officers not skilled to maximise innovation opportunities:

  Often the procurement teams are not adequately prepared to onboard agile companies with innovative solutions, imposing burdensome and document-heavy processes in an attempt to minimise risks (instead of running small pilots and PoC's to demonstrate value for money and potential).

  In addition, often the 'problem statements' are poorly phrased or described, which stops startups from offering good value for money or demonstrating how they could solve the problem.

  The disconnect between the agency/business owner and the procurement department also increases the number of unsuccessful/incomplete processes. Founders flagged the highest internal misalignment occurring on budget approval, timeline management/ expectations and approvals processes.

- The startup and scaleup market's perception is that Government contracts are not worth the challenge.

  Startups reported that the Government's process is not agile, is of high complexity, bureaucratic and paperwork/compliance heavy. Founders find the time and cost of acquiring customers through public procurement is not worth the risk or return.

  The process is not startup-friendly, and startup solutions are seen as risky by procurement teams. The preference is for multinationals instead of supporting local companies.

Overall, the perception is that the Government 'talks' about supporting innovation but remains 'reluctant' to procure from startups and scaleups themselves. There is also a lack of emphasis for regulators themselves to procure solutions from the many credible regtech providers available in the market. These regtech companies might also provide a significant capability uplift to the effectiveness of regulatory performance.

The recommendations described below have implications at several levels including:

- **Budget** – the need to set aside specific funding to support pilots, awareness programs and other initiatives.
- **Technical Infrastructure** – creation of technical sandboxes, API libraries and other ICT tools to support trial, collaboration and business transformation.
- **Culture** – evolving government culture to be more open, inquisitive, collaborative and risk-accepting which are all vital elements for working with startups.
- **Expertise** – ensuring that the Government has access to the right mix of internal and external resources for a swift and successful implementation.

Stone & Chalk has facilitated a number of industry initiatives and business transformation processes with partners, startups, scaleups and government. We now see a very real need for the Australian Government to pursue a 'fast-track' procurement model with the goal of streamlining processes, increasing levels of engagement and ultimately delivering more business opportunities to Australian technology companies.

Recommendation 2.1: Enhance Education and Awareness of Government procurement for startups

Experience tells us that one of the reasons why large organisations don't interact with startups is due to a level of inexperience across management and senior staff as to the existence and characteristics of various startup ecosystems. Case study number two from New Zealand below demonstrates one of the ways this was implemented.

In response to this, Stone & Chalk developed in 2019 a series of education and information courses (Stone & Chalk Academy) which are now made available to corporate partners on an ongoing basis. As a result, many more corporate partners now have a higher level of awareness and are more actively tracking and interacting with the startup ecosystem.

Recommendation 2.2: **Introduce Multi-Stage Engagement**

Having surveyed the Stone & Chalk ecosystem, a key point of difference that has arisen between the way that startups interact with the corporate sector versus how they interact with government, is that many corporates provide a defined pathway of engagement for startups to follow, typically incorporating engagement stages such as Proof of Concept, and Trial, prior to full commercial deployment. Case study number five below from Canada touches on this area.

These added stages serve to test and validate the startup proposition as well as helping to de-risk concerns on the part of the corporate entity.

Another example is the work from City Innovate in the USA (City of San Francisco)[10]. They propose a challenge-based approach to govtech procurement. Through the STIR platform they offer a framework for governments to solve challenges in collaboration with startups. According to the founding team: *"If we want a more effective government, we need a more inclusive govtech system. And if we want a more inclusive system, we need to get to the root of what's keeping innovators of all stripes out of government."*

Recommendation 2.3: **Introduce a 'Buy Local' Policy**

Startups often cite that they are at a disadvantage when dealing with the government as they lack the profile and level of sales capacity compared to many of the large, global technology companies that often dominate ITC projects and associated spend.

It is felt that if a policy to 'buy local' can be implemented, which would support a greater degree of focus and opportunity for local ITC solutions, this would partly help to address this imbalance. Case study number three from China below demonstrates one of the ways this was implemented to incentivise and increase local SME's participation in public procurement.

According to the Government's Department of Finance, 95.7 per cent by volume and 91.6 per cent by value of the contracts awarded in 2018-19 were awarded to businesses with an Australian address[11]. However, we would argue that the purpose and value of buying local requires more definition than businesses with an Australian address. Several multinational corporations have an Australian business address for example.

Also, 84 per cent of Government suppliers are SMEs who obtained 26 per cent of all procurement contracts value – according to the same site.

Stone & Chalk's recommendation is that a policy of positive discrimination should be implemented particularly in areas relating to technology software and hardware procurement where the intellectual property is developed by Australian technology-based startups and scaleups.

Programs such as the Indigenous Procurement Policy (IPP)[12] could serve as a baseline example for consideration.

Recommendation 2.4: Introduce appropriate Incentive Structures and Performance Tracking Measures

Changing processes and behaviours will take time and require a concerted effort by many parties on an ongoing basis. To support and expedite the journey, we recommend that a series of incentive structures and performance tracking measures be defined and implemented at an early stage so that it will be easier to track outcomes and make necessary course corrections on a much faster and nimbler basis.

[10] https://www.cityinnovate.com/
[11] https://www.finance.gov.au/government/procurement/statistics-australian-government-procurement-contracts-
[12] https://www.niaa.gov.au/indigenous-affairs/economic-development/indigenous-procurement-policy-ipp

Recommendation 2.5: Establish an Industry Advisory Panel for startup and scaleup procurement

As a way to capture and benefit from the experience of the commercial sectors when engaging with startups, the Government should establish an Industry Advisory Panel to oversee and help guide the transformation of the procurement process. Panel members should include:

- People with large enterprise experience of procuring from startups
- Startups that have sold into government (not necessarily always successfully)
- Organisations that have helped the commercial sector and/or government to work with startups.

5.2.4 What we found from the survey and from our experience

1 - UK and US Using government procurement to stimulate innovation

The United Kingdom and United States governments both run small business research or innovation initiatives as part of their procurement strategies. Through these programs, a government department identifies a specific challenge or problem that is released to the public. Small businesses can then submit an application with their proposed solution, and over the course of multiple phases, the company has the opportunity to prototype and possibly scale their solution.

2 - NZ initiatives to professionalise and empower the public procurement workforce

- Develop a model to assess the capability of procurement in agencies.
- Benchmark key agency procurement performance against the private sector.
- Agencies to allocate resources to reform procurement practice.
- Establish a small team of strategic procurement experts (Commercial Pool) to support high risk/value projects across Government.
- Target key procurement personnel within agencies to fast track processes.
- Develop New Zealand procurement academy.
- Establish and facilitate a Procurement Leaders Group (aged under 35 years) of future procurement leaders.

3 - China: Encouraging SMEs' participation in public procurement

China has introduced legal provisions to ensure Government procurement also includes products and services from small to medium enterprises. The Interim Measure on Facilitating the Development of SMEs in Government Procurement adopted jointly by Ministry of Finance (MOF) and Ministry of Industry and Information Technology (MIIT) provides that 30 per cent of government procurement budget shall be set aside to purchase goods and services from SMEs and 60 per cent of such reserved contracts shall be awarded to small or micro enterprises.

Additionally, it is **compulsory** for the procuring entities to report their implementation of the measure and the data gathered shall be published on the official government procurement media.

4 - Spain: Simplification of public procurement procedure in Spain: self declaration

Spain facilitated the Government procurement from SMEs and entrepreneurs by simplifying the process requirements. Public contracting entities can receive from potential suppliers a self-declaration instead of several documents certifying legal, social and fiscal situation of the SME. This self-declaration will always be enough in contracts of works under €1 million and in provision and services contracts under €90,000.

5 - Canada encourages early engagement between client departments and potential suppliers

Client departments are invited to engage with public procurement officers early in the process. By engaging clients and suppliers through early and ongoing consultation and dialogue, contracting officers are better situated to identify the various complexities and risks associated with a client's requirement, enabling the development of mitigation strategies.

3. Recommendations regarding Australia's Four-Pillars Policy

In providing any views and recommendations regarding Australia's Four Pillars policy, it is key to do so from the perspective of driving increased competition for the benefit of Australian consumers and businesses.

5.3.1 Background

As mentioned in the Productivity Commission's Report into Competition in the Australian Financial System (PC Report) in June 2018, the Four Pillars policy dates back to 1990 when it was introduced as the 'six pillars policy' to prevent a merger between any of the four largest banks and the two major life insurance companies of the time (Keating 1990). In 1997, the policy was narrowed to prevent a merger between the four major banks only and became known as the Four Pillars policy. Successive Australian Governments, including the current one, have maintained the policy.

The PC Report explains that the Four Pillars policy is not reflected in any legislation. In practice, it would be given effect through the Treasurer's power under one of the following statutes:

- the *Banking Act 1959 (Cth)* which requires the Treasurer's approval for any sale of an ADI's business by amalgamation. In making a decision, the Treasurer is required to take into account the national interest and not unreasonably withhold approval.

- the *Financial Sector (Shareholdings) Act 1998 (Cth)* (FSSA), which requires the Treasurer to approve any person holding a stake (effectively voting power) of over 15 per cent in a financial sector company (revised to 20 per cent since the PC Report).

The PC Report puts forward a strong case for the removal of the Four Pillars policy on the basis that the policy "*duplicates strong competition and prudential protections available elsewhere.*" The PC considers that "the mergers approval processes under the *Competition and Consumer Act 2010 (Cth)* (CCAct) have been strengthened and streamlined, while remaining subject to the "*substantial lessening of competition' test*."

The PC also considers that "the mergers approval processes under the *Competition and Consumer Act 2010 (Cth)* (CCAct) have been strengthened and streamlined, while remaining subject to the 'substantial lessening of competition' test."

In contrast with this view, the Australian Competition and Consumer Commission (ACCC) submission to the PC Competition Inquiry quite clearly states[13]:

> *Arguably, the administration by the ACCC of the merger's provisions in the CCAct enables mergers to be assessed on competition grounds and if necessary, for the ACCC to apply to the Federal Court to challenge any merger that would be likely to substantially lessen competition.*
>
> *However, the "four pillars" policy provides clarity and certainty that any mergers between the large banks would not be permitted. In that sense, the policy reflects a decision by the government to prevent further consolidation in an otherwise*

[13] Submission of Australian Competition and Consumer Commission to the Productivity Commission Inquiry into Competition in the Australian Financial System, Sept 2017, page 10 https://www.pc.gov.au/__data/assets/pdf_file/0019/221860/sub017-financial-system.pdf

concentrated market rather than leaving this decision potentially with the Court, should a merger be challenged on competition grounds.

ACCC also provides the following comments on the state of competition:

> *"Retail banking markets in Australia are characterised by oligopolies comprising the large banks, who can influence products, prices and other conditions in important markets either alone or together.*
>
> *When we look at retail banking markets in Australia, we observe a number of indicators that, taken together, suggest that the current oligopoly structure is not vigorously competitive and has not been for some time, including:*
>
> - *concentrated market structure with the largest players maintaining significant market shares over a considerable time, largely unchallenged by smaller players, many of whom offer a less extensive range of products and services*
> - *the largest players have been able to sustain very high margins and overall profits by international standards without attracting significant new entry or expansion by smaller players"*.

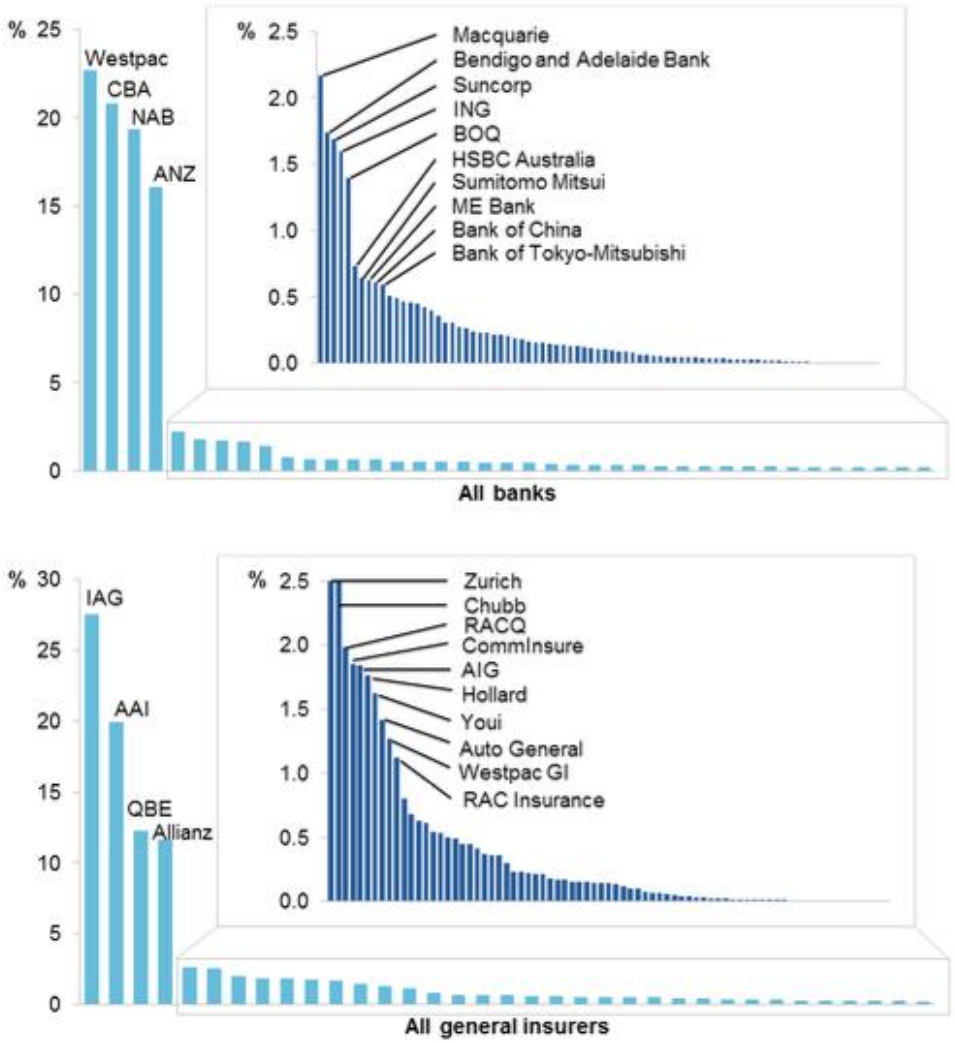
Accordingly, whilst the PC Report recognises there are some legislative protections in place, ACCC highlights that each of these are ultimately subject to the Treasurer's discretionary powers or court rulings. Hence, they are subject to further challenge and ruling rather than acting as finite policy or law.

5.3.3 Current state of competition and the top four banks

Australia's top four banks have progressively acquired the vast majority of Australia's mid-tier banks and now amass approximately 80 per cent market share clearly operating, as the ACCC states, as oligopolies. Figure One below from the PC Report[14] illustrates the extent to which consolidation has been allowed to occur under the same consumer protections that are cited by the Productivity Commission.

[14] Productivity Commission Report on Competition in the Australian Financial System, June 2018, Page 5
https://www.pc.gov.au/inquiries/completed/financial-system/report/financial-system.pdf

Figure 1 **Banking and insurance are dominated by large players — and long tails of other providers[a,b]**



It is Stone & Chalk's view that Australia needs protection from further accumulation of market share and therefore market power in ANY industry and therefore retaining the Four Pillars policy with respect to the banking industry is important.

It would seem a logical argument that should any of the big four banks be allowed to merge, then over time market dynamics of Australia's banking industry would worsen from an oligopolistic towards a monopolistic state therefore further eroding competition to the extent that all other institutions become irrelevant sending Australia back decades prior to deregulation of industries such as banking and telecommunications.

This view is also supported by the recent Financial System Inquiry 2014 (FSI Murray Report) which states that:

> *"the banking sector is concentrated, with the four major banks being the largest players in virtually all respects. This concentration, combined with the predominance of similar business models focused on housing lending, exacerbates the risk that a problem at one institution could cause issues for the sector and financial system as a whole. To prevent further concentration, the longstanding 'Four Pillars' policy, which precludes mergers between the four major banks, should be preserved as outlined in the Interim Report."*[15]

Additionally, the following data has already emerged from the survey conducted by Stone & Chalk as part of the consultation process of this Supplementary submission:

- 97 per cent of respondents are aware that Australia's big four banks hold approximately 80 per cent market share.
- 87 per cent believe that the big four banks should be prevented from increasing their market share.
- 73 per cent believed that the Four Pillars policy should be extended to include the top six banks.
- 80 per cent believe that the biggest six banks should be prevented from owning more than 15 per cent of any other bank.

Stone & Chalk agrees with the approach taken in the FSI that competition is best supported by **lowering the barriers to entry and removing friction from the overall system.** Rather than focus on dismantling the Four Pillars policy, the following initiatives would have a much greater impact on increasing competition domestically as well as the international competitiveness of our industry:

1. Comprehensive Credit Reporting
2. Digital Identity, data access and use
3. Greater Regulator accountability on competition outcomes
4. Consumer Data Rights and Open banking
5. Enhanced Regulatory Sandbox
6. Affordable access to the New Payments Platform (NPP)
7. Mandated adoption of key regtech capabilities on financial institutions and regulators
8. Incentives for corporations that source enterprise solutions from Australian startups and scaleups into their supply chains.

In addition, Stone & Chalk believes that the Four Pillars policy needs to be extended further and recommends:

[15] Financial System Inquiry (Murray), Final Report, Nov 2014, page 3 https://treasury.gov.au/sites/default/files/2019-03/p2014-FSI-01Final-Report.pdf

Recommendation 3.1: The Four Pillars policy should be expanded to cover the six banks to prevent further accumulation of market power

Recommendation 3.2: Divestment criteria needs to be considered should any single institution on an aggregate level exceed a market share in any subsector of financial services greater than 35 per cent

Recommendation 3.3: Any of the big six banks are prevented from owning or controlling more than 15 per cent of any other financial institution including neo-banks

Recommendation 3.4: Australia's largest insurers should be added to the Pillars policy, given capital ratios, liquidity requirements and the significant changes to risk profiles which remain largely unquantifiable due to factors such as climate change, the onset of widespread automation and artificial intelligence.

Stone & Chalk asserts that it is not in the short or long-term interests of Australians that further consolidation of large banks be allowed, whether related to competition or crises. The UK provides an important post-GFC case study where the UK Government took public ownership of two of its big four banks (RBS and Lloyds). Their failures were exacerbated by extensive investment banking business leveraging retail deposits. Since then, significant regulatory changes have occurred globally, and the investment banking operations of many large banks have been carved out.

Competitiveness must come from either differentiation or scale – ideally both, which would ensure Australia's largest financial institutions can compete globally.

As has been widely acknowledged both pre and post the Hayne Royal Commission, many large banks have for many years underinvested in technology, systems and tools to provide value, service and responsible conduct to Australians. This status needs to change to ensure transition and renewal in Horizons 2 and 3 of growth.

Allowing further consolidation of the four major banks would appear to reward recent misconduct and lack of performance. Rather, the Government should continue its strategy and actions to protect Australians and to increase competitive pressure in such a way as to provide value to Australians as customers and value to Australians as investors.

Deregulation paved the way in providing greater value to Australians as customers but had limited success as the market dominance of the top four has kept global banks largely at bay. However, with the onset of fintech, Australians are for the first time having access to highly differentiated financial services products which in many cases provide greater value and experience to traditional institutions.

4. Recommendations relating to introducing a Competition Mandate for Regulators

5.4.1 Background and survey feedback

We wish to acknowledge the significant progress that has been made by the Government in passing legislation in February 2020 to create the enhanced regulatory sandbox and passing amendments to the *Australian Securities and Investments Act 2001* (ASIC Act) to introduce an explicit competition mandate for ASIC as further described below.

We wish to also acknowledge the significant progress which has been made by the Australian Prudential Regulation Authority (APRA) and ASIC in supporting the growth of Australia's fintech and regtech sectors, including APRA's introduction of a phased licensing approach for 'restricted' Australian Deposit-taking Institutions (ADIs) in May 2018 to make it easier for new entrants to become licensed and to boost competition in the banking sector.

In this section of the Supplementary Submission, Stone & Chalk is seeking to help improve the outcomes from the regulatory process even further and the information contained within this submission is not intended to criticise any function of government, but rather to provide recommendations as to how we can better support the long term success of these two very important sectors to Australia's future prosperity.

In this section we draw attention to the need for Government to go beyond stipulating a competition mandate with relevant regulators but to also prescribe outcomes based key performance metrics and reporting which demonstrate how effective regulators have been in fulfilling their charters and in particular the proactive steps they have taken to increase competition for the benefit of Australians.

In the survey conducted by Stone & Chalk, respondents were asked 'What are the top 3 things that Australian regulators can improve on, so that Australia remains a competitive and thriving Fintech and Regtech landscape?'. Some considered responses are as follows (respondents have requested to remain anonymous):

> *"Aim to be as good at the FCA sandbox which is a global triumph. Coordinate amongst themselves - startups should not have to run around from agency to agency. Come and sit with the startups for a day or two. Get excited about their potential. Don't let the big end of town spread fear and lies or continue to throw bodies and spreadsheets at problems that can be solved with technology. To be brutally honest, the real risk of consumer harm lies in our incumbents being "suicidal tortoises." (ends)*
>
> *"Stop sitting on the fence: "we can't endorse solutions". They should have a list of credible vendors and encourage regulated businesses to review and make their own minds up." (ends)*
>
> *"They should be adopting RegTech themselves – I have offered AUSTRAC to work on building industry guidance on ML/TF risk models into our Risk Assessment Platform which would uplift capabilities across sectors but slow to respond, act and engage." (ends)*
>
> *"Australian regulators need to…show they mean business as very few [corporates] care about AUSTRAC and think they are untouchable - this has created a culture among many regulated entities of apathy and non-compliance." (ends)*

When referring to competition in this submission, Stone & Chalk considers that there are two broad categories of competition:

- Competition amongst regulated entities
- Competition within the supply chain of regulated entities (addressed as part of section c. Regulatory powers of intervention).

5.4.2 Competition amongst regulated entities

Current state of play in Australia

Stone & Chalk acknowledges the positive step forward by the Federal Government in 2018 in including specific requirements in its updated Statements of Expectations for both ASIC and APRA to consider and facilitate competition[16].

ASIC competition mandate

The Government's Statement of Expectations for ASIC (2018) provides the following:

> '*The Government now expects ASIC, in making its regulatory decisions, to have regard to competition issues to the full extent permitted by its enabling legislation*. *The Government also expects ASIC to publicly communicate how it has balanced its regulatory responsibilities, including competition aspects, in meeting its objectives.'*[17]

In response to the Government's Statement of Expectations, ASIC's Statement of Intent refers to anticipated legislative amendments to its mandate in relation to competition and states that '*we will continue to pursue all of our objectives to the maximum extent possible and, where they conflict, we will be transparent about any trade-offs*.' [18]

In October 2018, the *Treasury Law Amendment (Enhancing ASIC's Capabilities) Act 2018*[19] amended the ASIC Act to require ASIC to 'consider the effects that the performance of its functions and the exercise of its powers will have on competition in the financial system'.

APRA competition mandate

The Government's Statement of Expectations for APRA provides that *'the Government regards competition in the system as a key policy priority and expects APRA to facilitate an environment where innovation and competition are encouraged and barriers to entry are minimised'.* APRA's mandate as set out in the Australian Prudential Regulation Authority Act 1998 (APRA Act) includes the requirement to consider competition issues: APRA is required to balance the objectives of financial safety and efficiency, competition, contestability and competitive neutrality, and in balancing these objectives, to promote financial system stability in Australia.

[16] Statements of Expectation, Department of Treasury https://treasury.gov.au/the-department/accountability-reporting/statements-of-expectations
[17] Statement of Expectations https://treasury.gov.au/sites/default/files/2019-03/statement-fo-expectations-1.pdf
[18] ASIC Statement of Intent https://asic.gov.au/about-asic/what-we-do/how-we-operate/accountability-and-reporting/statements-of-expectations-and-intent/asic-s-statement-of-intent/
[19] Treasury Law Amendment (Enhancing ASIC's Capabilities) Act 2018 https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bId=r6087

In response to the Government's Statement of Expectations, APRA's Statement of Intent states that '*APRA will continue its support for the Government's policy priority in regard to competition by facilitating an environment where innovation and competition are encouraged and barriers to entry are minimised where this does not conflict with APRA's core objectives*.' [20]

Comparison with UK financial regulator mandates

The UK's Financial Conduct Authority's (FCA) mission statement incorporated in the FCA Business Plan 2019/20 outlines the proactive role the FCA plays in providing value on behalf of the public interest[21].

> *"Through our principles and rulemaking powers, we influence how markets are set up and the parameters in which firms and individuals operate. By influencing how markets operate and evolve, we can ensure they serve the public, business and the economy better...*
>
> **Promoting competition.**
>
> *"We make judgements on whether competition is working well as a result of the way markets are structured and/or the relationships between consumers and providers in the market. Where this is not happening, our intervention can help or force a change in these dynamics. This may be, for example, acting to address pricing and value in markets, as this can be a good indicator of whether competition in markets is working well for consumers."*
>
> **Encouraging innovation.**
>
> *"We [UK FCA] can use our convening powers to bring participants together and explore innovative ways of improving market effectiveness, such as developing FinTech (using technology to deliver financial services) to reduce the cost of financial services or to extend access to vulnerable consumers. We can also help both new and established businesses bring innovative financial services and products to the market through the support which our Innovation Hub and Regulatory Sandbox give to firms.*
>
> *This support covers both help in terms of our authorisation requirements and by providing a safe regulatory space to test new innovative products.*

Similarly, the UK's Prudential Regulatory Authority (PRA) also has a very clear set of expectations from the UK Government as it relates to competition. The PRA has a secondary competition objective (SCO), as set out in *Financial Services and Markets Act 2000* (FSMA), which came into force on 1 March 2014 and states that:

> *'When discharging its general functions in a way that advances its objectives, the PRA must so far as is reasonably possible act in a way which, as a secondary objective, facilitates effective competition in the markets for services provided by PRA-authorised persons in carrying on regulated activities'.*

The PRA's objectives with regard to competition:

1. Promote the safety and soundness of the firms we regulate
2. Contribute to securing an appropriate degree of protection for insurance policyholders

[20] APRA Statement of Intent https://www.apra.gov.au/statement-of-intent-september-2018
[21] Fca.org.uk/publication/corporate/our-mission-2017.pdf#page=8

3. Facilitate effective competition between firms.

As a result of the competition expectations placed upon it, the UK PRA regularly reports on KPIs relating to competition efforts and critical outcomes. Below is a list of examples of steps taken relating to competition (including detailed collaboration with other regulators):

1. Update on the New Bank Start-up Unit (NBSU) The NBSU is a joint initiative between us and the FCA.

2. Facilitating entry in the insurance sector In August 2018, we (jointly with the FCA) launched the New Insurer Start-up Unit (NISU),

3. PRA has launched a new internal competition e-learning training programme, which is complementary to existing training on the SCO, made available to all staff.

4. Strengthening their internal governance process by requiring that an explanation of the impact on the SCO arising from the issue under consideration.

5. Embedding the SCO into PRA policy and supervisory decision making in response to the recommendations made by the Bank's Independent Evaluation Office (IEO) in its 2016 review of our approach to the SCO. The IEO has recently undertaken a final review of our response to its recommendations, confirming that all of them have been fully implemented.

6. The PRA also prepares an annual competition report setting out how it is delivering against its secondary competition objective (SCO) and, in particular, *'the steps it is taking to drive more competition and innovation in financial services markets and to help ensure that the right incentives exist for new banks to enter the market'*.

Regulator Key Performance Indicators (KPIs)

In the Stone & Chalk survey, respondents were asked 'Do you believe that the Key Performance Indicators (KPIs) which Regulators regularly report on should also include key metrics relating to evidence how increasing competition has been embedded into their decision-making processes, as well as in the outcomes they have delivered?'.

A significant 93 per cent of respondents were in favour of such a requirement with 100 per cent agreeing that regulators needed to take a proactive stance towards increasing competition in the market.

Whilst there have been a number of competition and innovation initiatives taken by ASIC and APRA in recent times including innovation hubs, sandboxes and phased licensing, it would be beneficial to look to the UK approach to measuring regulator performance, particularly given the UK Government's expectations as to the explicit and proactive role the FCA and PRA has been directed to take. Robust performance measurements should still be in place regardless of whether the mandate is to 'promote', 'facilitate' or 'consider' competition issues.

Existing performance metrics for Australian regulators

The KPIs applicable to ASIC and APRA are set out in the Government's Regulator Performance Framework established in 2015 (the Framework) and are used by regulators in annual self-assessments of their performance. Both APRA and ASIC are also accountable in other ways including through regular reporting requirements such as their Annual Reports tabled in Parliament.

The headline KPIs currently applicable to ASIC and APRA are set out below.

KPI 1	Regulators do not unnecessarily impede the efficient operation of regulated entities
KPI 2	Communication with regulated entities is clear, targeted and effective
KPI 3	Actions undertaken by regulators are proportionate to the regulatory risk being managed
KPI 4	Compliance and monitoring approaches are streamlined and coordinated
KPI 5	Regulators are open and transparent in their dealings with regulated entities
KPI 6	Regulators actively contribute to continuous improvement of regulatory frameworks

It is notable that none of the KPIs make specific reference to the competition mandates, nor do the ASIC Annual Report or the APRA Annual Performance Reports (in the APRA Annual Report) include any measurement of performance against the competition mandate. Rather, the reporting appears to focus on financial conduct, enforcement measures, infringement matters, monitoring and surveillance, in the case of ASIC, and risk-based measures of the Performing Entity Ration (PER) and the Money Protection Ration (MPR), in the case of APRA.

It is noted that the Framework is stated to relate principally to regulatory burden arising from the administration of regulation, rather than the process for and outcome of regulatory policy making. However, Stone & Chalk's view is that this does not provide a sufficiently robust accountability mechanism and that the KPIs should be revised to align with outcomes including in relation to the competition mandate.

The ASIC Service Level Charter and annual reporting of performance results on ASIC's website provides an additional performance measurement for ASIC.[22] The Charter provides targets for timing for responses to calls, complaints and applications for licences and relief. While the Charter and reporting provide transparency and expectations for common interactions between ASIC and consumers the mechanism appears to focus on administration and process and does not seem to extend to outcomes relating to competition such as licensing of new entities or performance of the ASIC sandbox.

Regulators must have KPIs and reporting requirements relating to their competition mandate

The Explanatory Memorandum for the *Treasury Laws Amendment (Enhancing ASIC's Capabilities) Act 2018* sets out some of the specific aspects of competition that ASIC may have regard to in relation to its competition mandate and are strongly supported by Stone & Chalk:

[22] https://asic.gov.au/about-asic/what-we-do/how-we-operate/performance-and-review/asic-service-charter/

- whether the decision will **create a barrier to entry,** making it more difficult for new firms to enter the industry;
- whether the decision will **create regulatory advantages for some companies** over others competing in the same sector, or generally across the industry as a whole;
- whether the decision will **improve consumers' ability to exert demand-side competitive pressure** in a market;
- whether the decision will **disproportionately impact small entities** (for example by imposing obligations that do not appropriately scale the regulatory risks presented by those entities) and the impact that would have on competition; and
- whether **alternative competitively neutral approaches** can be identified.

Recommendation 4.1: The Government stipulate the specific KPIs it wishes ASIC and APRA to achieve in relation to its competition obligations and expectations

Recommendation 4.2: The Government stipulate acceptable internal operating service levels for ASIC and APRA in relation to their competition mandate

Recommendation 4.3: The Government ensure that regulators such as ASIC and APRA fully integrates this new competition obligation through staff training, decision making processes and outcomes reporting

Reference could be made to the UK FCA requirements where performance is measured across two categories: internal service standards and outcomes.[23]

Service standards relate to the levels of performance that when carrying out regulatory functions such as:	**Outcomes based KPIs** capture processing times and outcomes and are measured and reported in the following categories on a quarterly basis such as:
• Authorisations • Communications • Complaints about us • Listing • Notifications • Payment services regulations & electronic money regulations • Regulatory decisions • Customer satisfaction	• Authorisations • Cancellations • Variations of permission • Payment services and e-money • Waivers • Change of control • Approved persons and passporting

[23] https://www.fca.org.uk/data/service-standards-2018-19

5.4.3 Competition within the supply chain of regulated entities

Regulatory Powers of Intervention and increasing competition within the supply chain of regulated institutions

One important data point is that the vast majority (70 - 80 per cent) of startups and scaleups in the broader fintech and regtech sectors are creating enterprise solutions. That is, they are creating solutions to sell to large organisations or to partner with large organisations in selling to consumers.

As such, when considering competition in the market and any competition mandate of regulators it is of paramount importance that the supply chain of regulated entities be adequately included. Otherwise, if competition mandates do consider the supply chain of financial institutions, then Parliament's efforts of increasing competition and supporting the growth of fintech and regtech will fail to support up to 80 per cent of the sector and fall extremely short of expectations.

Stone & Chalk has been made aware of instances where financial services institutions have been prevented from contracting a startup or scaleup due to the intervention of regulators.

As part of the questions taken on notice, Stone & Chalk was asked to provide some case studies of where intervention by regulators has resulted in abandonment by corporates of sourcing solutions from startups and/or scaleups.

Consequently, as part of its survey Stone & Chalk asked respondents whether they had '*experienced a business deal or contract with a Corporate that was significantly slowed down or did not proceed due to the decisions, actions of or interventions from an Australian regulator?'.*

The table below provides a high-level summary of some initial responses to the survey findings. Stone & Chalk welcomes the opportunity to develop and provide specific case studies to the Select Committee at a later stage:

	SLIGHTLY SLOWED DOWN	SIGNIFICANTLY SLOWED DOWN	BLOCKED, DID NOT PROCEED	TOTAL
APRA Comments (3)	16.67% 1	66.67% 4	16.67% 1	6
ASIC Comments (1)	33.33% 1	66.67% 2	0.00% 0	3
Austrac Comments (0)	50.00% 1	50.00% 1	0.00% 0	2
RBA Comments (0)	50.00% 1	50.00% 1	0.00% 0	2
Other (please specify) Comments (1)	50.00% 1	50.00% 1	0.00% 0	2

Source: Extracted from Stone & Chalk survey, March 2020

Of this group:

- Two entities were able to modify their product or service to address the specific regulator's concerns, and
- Three had to abandon completely and switch to different customers or customer segments.

Financial Regulator Assessment Authority – draft legislation review

Stone & Chalk supports the recommendation of the Hayne Financial Services Royal Commission to introduce a new regulatory oversight body.[24] Whilst we support this move and the Government's plan to introduce new legislation by 30 June 2020, it's critical that the new oversight body hold the regulators to account against updated and new KPIs which are reported on a regular (quarterly basis) to provide government, the private sector and the public with increased transparency with respect to the competition mandate.

We note from the current public consultation process on the draft legislation to establish the Financial Regulator Assessment Authority[25] that it is proposed that certain matters be excluded from the Authority's functions:

1. The regulators are independent entities responsible to the Parliament, they are not accountable to the Authority.
2. Accordingly, the Authority does not have the power to direct the regulators to implement any recommendations it makes.
3. Further, the Authority's functions do not include assessing or reporting on only a single case.
4. A single case may only involve the single performance of a function, or the single exercise of a power by a regulator. Alternatively, a single case may also involve the performance of multiple functions and/or exercise of multiple powers by a regulator (e.g. several actions may be taken to enforce a single compliance matter).
5. For example, the Authority is not permitted to assess and prepare a report about the effectiveness of one particular regulatory action or enforcement matter undertaken by APRA or ASIC. This safeguards the independence of the regulators and ensures that the functions of other government bodies responsible for investigating complaints about individual matters (such as the Ombudsman) are not duplicated by the Authority. The focus of the Authority is on each regulator's effectiveness at a high level—that is, how well the organisation is delivering on its statutory mandate.

If these exclusions are to remain, it further emphasises the need to ensure that the regulators themselves have both the expectations *and* the performance measurements and reporting requirements relevant to increasing competitiveness.

[24] Royal Commission into Misconduct in the Banking, Superannuation and Financial Services Industry, 2019 (Recommendation 6.14) https://financialservices.royalcommission.gov.au/Pages/reports.aspx
[25] Exposure Draft Explanatory Materials, Consultation, Jan - Feb 2020 https://treasury.gov.au/consultation/c2020-48919a

5. Recommendations relating to new draft R&D Tax Credit legislation

5.1.1 Background

It is good news for Australia that the Government has acknowledged the importance of the R&D Tax Incentive (RDTI) and the need to update its provisions. The Ferris, Fraser and Finkel report of 2016 ("3F Report")[26] and subsequent 2017 Innovation and Science Australia (ISA) Prosperity 2030 report ("Prosperity 2030 Report")[27] provide a good foundation for further review and in reviewing the proposed new R&D tax draft legislation, currently before Parliament, it is clear that the majority of the proposed changes reflect the key findings of both reports.

However, the reports, as thorough and well informed as they are, have some significant gaps as they pertain to the needs of the Australian economy both presently and into the foreseeable future.

It is clear from the reports that a major focus of the findings was to provide a framework for the ongoing financial viability of the RDTI which is evident in the findings and subsequent recommendations made.

However, the reports reveal a significant gap as related to the relative value of business innovation efforts. As every job (input) and every product/service is unique (output) in terms of contribution to productivity and GDP growth so too is the nature of innovation, whether R&D based or not.

In fact, as Australia is still consistently ranking poorly amongst OECD countries in the commercialisation of research, one might argue that the value of research (in aggregate) in terms of contribution per $1 spent is somewhat less than other sources of innovation.

Whist the current interpretation of the existing RDTI needs updating, the proposed new legislation is seeking to address only a small part of the wider problem.

More recently, ISA published a report titled *Stimulating Business Investment in Innovation* (Stimulating Business Investment Report).[28] The report is headlined by the statement that *"Innovative economies are more productive, resilient, adaptable to change and better able to support higher living standards."*

In this latest report, ISA draws attention to the importance of non-R&D innovation as a key driver of economic growth and an area which remains unsupported by Government and excluded in the current and proposed RDTI legislation.

ISA define non-R&D innovation as "*innovation activities that don't stem from a scientific method or involve R&D. Examples include the development of new or improved business models, as well as organisation and marketing practices."* Further detail is provided in their report.

[26] R&D Tax Incentive Review, Co-chairs Bill Ferris, Alan Finkel, John Fraser, 28 Sept 2018 https://treasury.gov.au/media-release/review-of-the-rd-tax-incentive

[27] Innovation and Science Australia, Australia 2030: Prosperity through Innovation, November 2017 https://www.industry.gov.au/data-and-publications/australia-2030-prosperity-through-innovation

[28] Innovation and Science Australia, Stimulating Business Investment in Innovation, Feb 2020 https://www.industry.gov.au/data-and-publications/stimulating-business-investment-in-innovation

We agree with ISA's view that *"to remain globally competitive, Australian businesses must invest effectively in all aspects of innovation to keep pace with the innovation performance of international peers. …Firms in global peer economies are innovating to enhance their competitiveness. Investment is shifting from tangible assets such as factories and manufacturing equipment, to intangible assets such as R&D, productivity-enhancing digital technologies (including software and systems), reconfigured business models, branding and marketing, and new staff capabilities."*

The First of four strategic recommendations made by ISA in their report is that Government should rebalance its policy mix to support business investment in both non-R&D innovation and R&D, specifically with significant additional support for non-R&D innovation.

However, rather than support non-R&D for a defined period as ISA suggest, given the significance and contribution to job creation in emerging industries, it is important that the Government make a clear long-term commitment and remove any defined time limitations.

Stone & Chalk supports this view that additional support should be targeted at non-R&D innovation (which includes software and digital innovations, process improvement, business model innovation and marketing innovation which often don't qualify for the RDTI) which has been reflected in the recommendations made in this Supplemental Submission.

The following sections below provide further reasoning as to why non-R&D innovation is such a critical component of Australia's present and future economy.

Recommended changes to Australia's new RDTI legislation

a. High level recommended changes to new draft RDTI legislation

The current proposed legislation must contemplate and cater for how it will increase competition and help increase both the extent and speed of adoption of startups and scaleups in Australia. This must be done through a combination of government being an exemplar "Government as a customer" and by addressing the market failure in Australia of very low levels of commercial collaboration between incumbent corporates and startups/scaleups.

It has not been possible in the available timeframe to provide a detailed consideration of all aspects of the new proposed RDTI legislation. Stone & Chalk has however, focussed its efforts and response on major issues missing in the current draft bill and suggested improvements to better support all forms of business innovation, competition and collaboration.

The following is a snapshot of some of the key data points available from the survey conducted by Stone & Chalk which provides further validation for the recommendations contained herein:

- **46 per cent of respondents have recently received an adverse ruling regarding their RDTI submissions which are inconsistent with previous rulings they have received**

- **87 per cent believe that all software development costs should be eligible for the refundable component for companies with an annual turnover up to $50 million.**

- **90 per cent agree that providing small businesses such as startups and scaleups with a 13.5 per cent premium on top of their refundable amount will make a significant difference in their ability to commercially succeed.**

- **86 per cent of respondents believe that they would be more successful in selling enterprise solutions to corporates if corporations are financially incentivised to procure solutions from startups and scaleups.**

A summary of recommendations relating to the new RDTI legislation is outlined in the table below, with further detail provided subsequently.

Current law	*Proposed law*	*S&C comments*
Recommendation 5.1 and 5.2: The expenditure threshold		
The R&D expenditure threshold applies to eliminate the incentive component of the R&D tax offset in relation to notional deductions in excess of $100 million.	The R&D expenditure threshold is increased to $150 million.	Disagree. **The qualifying expenditure threshold should remain at $100m to ensure longevity of the program**
The R&D expenditure threshold is legislated to cease on 1 July 2024.	The R&D expenditure threshold is a permanent feature of the law.	Agree. **The R&D expenditure threshold should be a permanent feature of the law.**
Recommendations 5.3 and 5.4: R&D Tax Offset for small R&D entities		
R&D entities with aggregated turnover of less than $20 million are generally entitled to an R&D tax offset rate of 43.5 per cent.	R&D entities with aggregated turnover of less than $20 million are generally entitled to an R&D tax offset rate equal to their corporate tax rate plus a 13.5 per cent premium.	Partially agree. **R&D entities with aggregated turnover of less than $50 million should be generally entitled to an R&D tax offset rate equal to their corporate tax rate plus a 13.5 per cent premium**.
R&D entities with aggregated turnover of less than $20 million are entitled to a tax refund for any R&D tax offset they receive in excess of their income tax liabilities.	The amount of a refund that an R&D entity can receive is capped at $4 million per annum. Offset amounts that relate to expenditure on clinical trials do not count towards the cap and remain refundable.	Strongly disagree. **There should be no caps placed on those accessing the refundable R&D tax offset**.

Recommendation 5.5: The R&D Tax Offset for large R&D entities		
R&D entities with aggregated turnover of $20 million or more are entitled to a non-refundable R&D tax offset at a rate of 38.5 per cent.	R&D entities with aggregated turnover of $20 million or more are entitled to an R&D tax offset equal to their corporate tax rate plus a premium based on the level of their incremental R&D intensity for their R&D expenditure.	Disagree. **Disagree with the proposed intensity premium which is focused on internal R&D efforts only.** **S&C recommends a Government retain a flat percentage rate above the corporate tax rate for expenditure on R&D activities and introduce a 20 per cent non-refundable startup and scaleup collaboration premium in its place.**

5.3 Recommendations in further detail:

Large R&D entities – Retain volume based non-refundable R&D tax offset for large R&D entities

It is generally accepted that many companies use the RDTI to subsidise R&D that would be undertaken even without the incentive. However, this is true of most companies and to penalise larger companies for doing so misses some important points. Firstly, larger companies are able to take on larger high cost R&D projects that smaller companies cannot. Secondly, research shows that larger companies have a greater 'spillover' effect.

The proposed intensity premium will effectively reduce the R&D tax benefit from 8.5 per cent to 4.5 per cent for the majority of larger companies. This is not enough to incentivise additional R&D and once compliance costs are factored in, will actively discourage them from claiming or perhaps even undertaking R&D in Australia. It would be preferable to amend the current legislation to peg the non-refundable R&D tax offset rate to 8.5 percentage points above the corporate tax rate and retain the cap at $100 million.

Large R&D entities – Collaboration-based non-refundable tax offset for large R&D entities

In line with the arguments and facts previously presented it is Stone & Chalk's recommendation that a '20 per cent collaboration premium' for expenditure by larger R&D entities for collaborating with Australian research institutions and startups/ scaleups be introduced. Further, the $100 million cap should be retained and extended to any additional tax benefit attributable to Division 355 to ensure fiscal longevity of the program.

Where a larger company spends over $100m on both R&D and collaboration, it could prioritise the collaboration premium – e.g. if a company spends $100 million on R&D and $20 million on collaboration, it would seek to apply the collaboration premium to the $20 million first and then the R&D tax offset to the remaining $80 million expenditure before hitting the cap.

Introducing such a collaboration premium would encourage Australia's larger companies to engage and collaborate with Australia's more innovative startups/ scaleups, driving innovation and rewarding all forms of commercial collaboration between large companies and Australian startups/ scaleups.

Small R&D entities – the refundable R&D tax offset

Given the significance and aggregate contribution to GDP and jobs growth of innovation (whether R&D based or not) by startups and scaleups, Stone & Chalk believes that the current refundable R&D tax offset should be replaced by a refundable innovation tax offset equal to their corporate tax rate plus 13.5 percentage points.

Stone & Chalk also recommends that a refundable innovation tax offset should be available to R&D entities with an aggregated turnover of less than $50 million (rather than $20 million) so it aligns with the Government's own definition of a small business.

We reference the recent Stimulating Business Investment Report and recommend the definition for Innovation, which would include both R&D and non-R&D innovation, be implemented in the legislation ensuring additional support is targeting at non-R&D innovation such as software and digital innovations, process improvement, business model innovation and marketing innovation.

Small R&D entities - the cap on refundable R&D tax offsets

Stone & Chalk strongly disagrees with the proposal to cap the refundable R&D tax offset as presently contemplated by the bill for the purposes previously stated.

Lack of funding for high risk high cost innovation, along with regulatory and procurement barriers by large corporate and Government mean the refundable RDTI is often the difference between a promising new startup/scaleup succeeding or failing.

The proposed exemption for clinical trials only from such a cap indicates a lack of understanding of the importance of other areas of innovation and the long lead times for market research, development and commercialisation of new technologies, business models and digital businesses (which is further pronounced within regulated industries).

Applying an exemption for clinical trials shows a good approach for innovation which incurs a very long lead time. However, applying an exemption to only clinical trials excludes the many other sectors where innovation carries long lead times outside of medical research. Rather than removing the cap from a particular industry, Stone & Chalk recommends that the nature of the innovation itself is what needs to be supported.

For example, financial services, cyber security, insurance, space and defence are all sectors which are either heavily regulated or have extremely high testing and compliance standards which incur significant lead times through the product development life cycle. The federal government has already recognised this through the creation of innovation hubs in ASIC, restricted ADIs with APRA, growth centres and many other initiatives.

The current proposal to cap all sectors excluding clinical trials would appear to be in contradiction to broader government policy as it relates to supporting the growth of emerging industries by supporting both R&D and non-R&D innovation.

Furthermore, and in a broader sense beyond the need to remove the cap, the current focus on R&D based innovation only in the current and proposed legislation ignores the importance of non-R&D innovation as outlined in the Stimulating Business Investment Report.

This is of key importance as non-R&D innovation is currently excluded from any form of incentive.

> It is Stone & Chalks clear recommendation that a different approach is needed similar in principle to the Collaboration Premium recommended in the 3F Report and Prosperity 2030 Report by extending eligibility for the collaboration premium to include a broad range of expenditure by larger companies on collaborating with Australian startups and scaleups (on both innovation and commercialisation activities).

Collaboration Premium

Recommendation three of the 3F Report introduced a collaboration premium of up to 20 per cent for the non-refundable tax offset to provide additional support for the collaborative element of R&D expenditures undertaken with publicly funded research organisations.

To ensure adequate incentive and stimulus exists to encourage innovative and commercial collaboration between startups and scaleups and in the absence of any other existing legislation, Stone & Chalk recommends adopting this principle and mechanism and extending the eligibility criteria to include collaboration between large companies and Australian startups and scaleups.

Our recommendation is that large companies receive a 20 per cent non-refundable collaboration premium for every dollar they spend with Australian research organisations and startups/scaleups up to an expenditure threshold of $100 million.

This would mean that if a large company spent more than $100 million on collaborating with Australian research institutions and/or startups and scaleups, the maximum non-refundable tax offset they would be eligible for would be capped at $20 million.

Such a mechanism provides certainty for the large company in terms of possible tax relief, provides a high degree of certainty for the ATO and provides a significant multiplier effect across the economy. This is particularly the case as these are headline costs and not the true cost given a very large proportion of such expenditure would go to labour which recirculates income tax and startup/scaleup growth which recirculates company tax receipts back to Treasury.

In the long term, as such collaboration pays dividends for all parties and as more Australian startups and scaleups continue to grow, this multiplier effect extends further and is felt across the entire economy.

Suggested eligibility criteria for Collaboration Premium with Australian startups and scaleups

1. An eligible **Start-up entity criterion** could be loosely based on the 'Early Stage Innovation Company' (ESIC) definition, but with higher thresholds. For example:

    - The company must be incorporated in Australia or registered in the Australian Business Register
    - The company (plus any wholly owned subsidiaries of the company) must have total expenses of $10 million or less in the previous income year
    - The company (plus any wholly owned subsidiaries of the company) must have assessable income of $2 million or less in the previous income year
    - The company's equity interests are not listed for quotation in the official list of any stock exchange, either in Australia or a foreign country.

2. An eligible **Scale-up entity criterion** could be for example:

    - The company must be incorporated in Australia or registered in the Australian Business Register
    - The company (plus any wholly owned subsidiaries of the company) must have total expenses of $30 million or less in the previous income year
    - The company (plus any wholly owned subsidiaries of the company) must have grown its assessable income by at least 10 per cent in the previous income year.

3. At the time the innovation/ commercialisation collaboration was conducted, the startup or scaleup cannot have been connected with or an affiliate of the large R&D entity. For the avoidance of doubt, this would not preclude multiple projects conducted between the same startup/scaleup and large R&D entity from being eligible for the Collaboration Premium.

4. Proof of Concept (PoC) projects with defined problem criteria, success metrics and testing plan. Proof of concept projects to be time limited.

5. Proof of Value (PoV) projects with articulated problem criteria, value metrics, testing plan and measures of success. Proof of value projects to be time limited.

6. Pilot projects with defined problem criteria, success metrics, pilot testing plan and proposed implementation plan should the pilot be successful by meeting success criteria. Pilot projects to be time limited.

7. Commercial implementation – to ensure that sufficient incentive is provided to overcome internal corporate inertia and complications associated with legacy systems, with the first deployment costs of a new product or service up to the first 12 months shall be included within the definition of eligible collaboration premium.

Note: As we the related data and modelling is not publicly available, we recommend that these definitions be investigated and tested with industry stakeholders further.

5.4 Benefits of these recommendations:

1. Replacing the non-refundable R&D tax offset with an innovation and commercialisation collaboration premium is unlikely to reduce internal expenditure on R&D by large companies and will incentivise those companies to innovate from the “outside-in" reducing cost and time to market and therefore delivery risk.

2. Increased market diversity and competition as large companies collaborate with new entrants and new entrants grow and bring new and improved products and services to market.

3. Increasing investment attractiveness for Australian startups and scaleups. Product-market fit and therefore customer traction is the most important factor for investors in assessing risk and in making investment decisions into early stage businesses.

4. Jobs growth: By increasing the growth of startups and scaleups, jobs naturally follow providing opportunities for people displaced by automation as well as those entering the workforce. Global studies show that startups and scaleups are net contributors to jobs growth with a heavy weighting of those jobs in the new and emerging economy. This in itself provides significant downstream benefits.

5. Incumbents success: Incumbents can avoid disruption through commercial collaboration with startups and scaleups, surviving and becoming an ongoing key player in their industry into the future which enables stronger economic positioning, wider dissemination of existing industry knowledge and results in greater competition and an innovative ecosystem of players. These organisations will continue to provide jobs and growth for Australia if they, too, are growing and developing through collaborative innovation.

6. Taxation: Given the tax status of Australian startups and scaleups Treasury benefits from the multiplier effect of increased personal income tax receipts in both the immediate and long term and depending on the stage of maturity of the scaleup, long term high growth corporate tax receipts.

7. Startups and scaleups are already exporting technology internationally at a very early stage where arguably large R&D entities continue to be uncompetitive. This increases foreign direct investment further and improves Australia’s balance of payments in the long term.

Stone & Chalk strongly urges the consideration and implementation of these measures within the RDTI legislation to ensure Australia is better equipped to address and respond to the social and economic disruption that lay ahead, particularly as the rate of jobs displacement is only going to increase in velocity.

6. Recommendations relating to ways in which programs enabling Lifelong learning can help workers retrain and transition into emerging industries and jobs in Australia.

Our nation's key global competitive edge will sit not only with emerging technology but also with our workforces' ability to deliver greater productivity. Currently, accelerating technology out strips the rate at which we are developing new skills. In short, a key component of sustainable economic and social success rests in our capacity to skill, re-skill and up-skill Australian workers for the near and long-term future, starting now. The alternative is to risk falling behind into the untenable position of economic stagnancy or failure alongside social upheaval caused through unnecessary mass, long term unemployment.

In light of this, Stone & Chalk has founded S&C Academy, extending its' purpose and vision to connect, influence and to inform and educate Australian workers and leaders to meet the demands of emerging technologies. The Academy already serves an important role providing educational programs on topics pertaining to technology, innovation and entrepreneurship. The expansion to emerging technologies gives the S&C Academy the opportunity to reach and reskill the nation's workforce, up to **56 per cent of whom are currently in roles which will be impacted by automation and augmentation** *(Faethm Report, 2020).*

Taking into account the sectors within Stone & Chalk's strategy, this amounts to 43 per cent of workers alone within financial services *(Martin Blake, KPMG, 2019).* There is no doubt of an urgent need to provide critical skills and development opportunities to the Australian workforce if we hope to appropriately manage the impact on these sectors.

6.1 Factors Shaping the Future of Work

Simultaneously, technology advances and social change combine to create unprecedented pressure on industry and the economy. We are in the midst of a perfect storm.

- Five prevalent emerging technologies – social and process AI, fixed and mobile robotics and advanced materials means much work can be done faster and more efficiently through automation and augmentation. This mostly impacts workers performing repetitive tasks with predictable outcomes. This type of work requires low levels of cognitive function and human ingenuity – problem solving, creativity and innovation, communication and adaptability.

- Complex cognitive function, flexibility and those attributes already outlined as unnecessary in simple, repetitive tasks, are best applied to complex tasks with low levels of predictability, often 'one-off'.

- Combined with social factors such as higher overall levels of education, greater workforce participation, longer life expectancy, an ageing workforce, shifting emphasis to work/life balance is seeing the rise of protean or non-linear career – according to the Australia Bureau of Statistic (ABS) Australian workers can expect to have five discrete careers and at least 17 different roles across their working lives.

- Economic pressure occurs when the effect of technology, such as the rise of SaaS platforms means conventional and expensive legacy platforms are increasingly less viable, notwithstanding the security concerns around technical vulnerabilities. Technology is creating an unprecedented demand on business to reduce costs, to increase agility to compete and survive. Work structures and design are changing to build agility – the rise of the 'gig' economy across all levels of work reduces labour

costs. Competitive markets promote the central focus on customers which promotes front line decision making causing flatter reporting, and as businesses reduce fixed labour costs to compete, we are seeing increasing job losses, under employment (low worker utilisation – casual and part time work where a worker is seeking full time work).

Where the roles first impacted involve *repetitive work* with *predictable outcomes,* as technology becomes more sophisticated, we can expect to see it encroach on more complex roles, impacting middle and even senior management and many professions. According to a recent KPMG report, automation and augmentation will mean 43 per cent of roles in the financial services sector (comprising 900,000 workers) alone will be unrecognizable.

6.2 Where's the problem?

While technology and social change is happening in real time around us, unfortunately, the mindsets of many industry leaders and workers are stuck in the last century, the Third industrial revolution. Leaders are fearful of skills mismatching. This attachment creates 'immovable objects' that stifle and ultimately kill nations, sectors, businesses, and ongoing employability prospects. Change becomes an economic and social imperative. At the heart of change is ***skilling and reskilling.***

Specifically, according to the recent Faethm Report, over the next 15 years, 56 per cent of all Australian workers will be impacted by automation and augmentation. All these workers and future workers will need to be either skilled – through our primary, secondary and tertiary education systems, reskilled to deal with role augmentation or up-skilled in the case of job obsolescence through automation. A 2018 McKinsey report states that within a decade, 400 – 800 million mid-career workers world-wide will be in career transition (Skill Shift Automation and The Future of Work, 2018).

6.3 Skills matching drives productivity

A growing body of evidence suggests a mismatch between workforce skills and industry needs. In the European Union for example, there is evidence of a qualification mismatch over the past decade, with more than 20 per cent of workers receiving either more or less formal education than is required for their job. This is a global challenge and a mismatch in the skills of the workforce (as opposed to the educational credentials) is even more pronounced.

In a 2015 survey of LinkedIn users, 37 per cent of respondents said their current jobs did not fully use their skills. The OECD, for example, finds mismatches both in the skills of individuals and in the educational credentials they hold, compared with what companies need. According to OECD data, 25 per cent of Australian workers are not skills matched to their roles, being under or overqualified or experienced or both, the productivity cost is estimated at six per cent (Skills and Work - OECD, 2019).

6.4 Global comparative data

If we firstly consider skills necessary to survive and thrive, we can look at skills in three dimensions – **business, technology and data skills.** The latter two contribute to technology uplift and rate of progression or growth. In 2019, Global Skills Index reported by global skills organisation, Coursera, Australia is ranked nine in Top 10 for Business Skills globally following Finland, Switzerland, Austria, Netherlands, Belgium. New Zealand, Germany and Sweden before Australia. Canada is in 10th position. For technology, Australia ranks 14 of 15, remaining in cutting edge, but only just.

Fortunes turn though. Argentina is leading the table having slid from one of the world's Top 10 richest economies in early 20th century to a developing country at the start of the 21st century, and again leading the way as No. 1 cutting edge for technology. Sitting in the competitive range are France, Russia, Israel, UK, USA, Canada, Hong Kong and Brazil.

On data science, Australia sits mid-range in the Competitive ranking, falling behind all cutting-edge countries, led by Israel, Switzerland, Belgium, Austria, Finland, Sweden, Canada, Netherlands, Hungary and Norway.

By region, Australia sits second to New Zealand at poll position for Business skills followed by Singapore, Hong Kong, Japan, China and Vietnam. In technology, Australia holds first place, followed by New Zealand, Hong Kong, China, Taipei and India. Data science – Australia sits in third place after New Zealand and Singapore.

Sector data shows the following breakdown in abilities by skill set and industry:

	Business	Technology	Data Science
01	Manufacturing	Manufacturing	Technology
02	Consulting	Insurance	Consulting
03	Telecom	Telecom	Telecom
04	Healthcare	Technology	Manufacturing
05	Technology	Finance	Media
06	Media	Media	Consumer Goods
07	Insurance	Healthcare	Insurance
08	Consumer Goods	Consulting	Healthcare
09	Finance	Automotive	Finance
10	Automotive	Consumer Goods	Automotive

Business Skills – Accounting, Communication, Management, Finance, Marketing & Sales; **Technology Skills** – Computing Networking, Databases, Human Computer Interaction, Operating Systems, Security Engineering, Software Engineering; **Data Science** – Data Management, Data Visualization, Machine Learning, Maths, Statistical Programming, Statistics.

6.5 Urging lifelong, transferable skills

In addition to these three skills, is an underlying set of critical skills deceptively referred to in the past as *soft skills*. These are complex human skills and most likely those that will be last lost to automation and augmentation. These require **human ingenuity** and include higher cognitive skills like problem solving and creativity, social and emotional skills that are adaptive, transferable and enduring and foster lifelong learning.

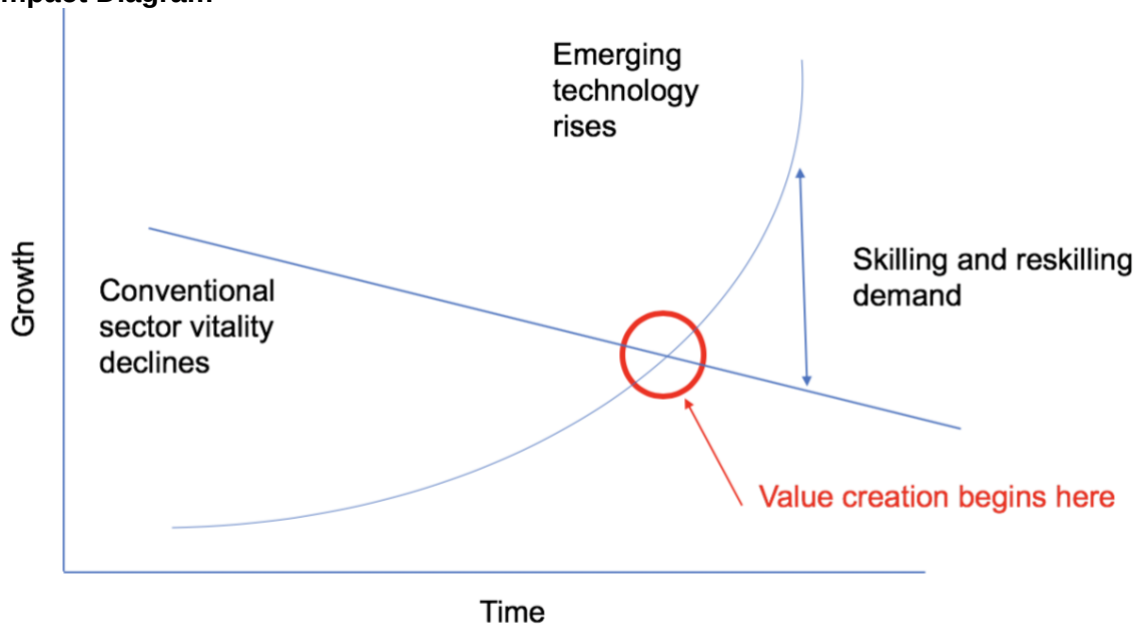
6.6 Stone & Chalk Academy Proposition

Stone & Chalk Academy is uniquely able to address the skills demands of its stakeholders to bring to a central place, the diverse development initiatives necessary to ensure Australia is skilled and ready to create a thriving future for workers and industry.

To date, educational programs and private institutions that have emerged over the last decade have focussed on 'bootcamp' style or short-degree style training for beginners in various tech-related disciplines. These services have been critical in enabling people to reskill into new careers.

However, there are large components of the workforce that remain under-serviced. Many professionals do not wish to change their career, but rather supplement their existing profession with additional, newer skills and capabilities to make them more proficient. Our objective at Stone & Chalk Academy is not to turn low-skilled workers into website developers or digital marketers. Instead we are asking the question: how does an educated, white-collar professional remain relevant? What additional skills and capabilities does a lawyer, or a doctor, need to learn to continue to be great at their jobs? Currently, there are no leaders in the space of cross-skilling employees into emerging technologies and higher cognitive skills.

Impact Diagram



Over the last six months, Stone & Chalk Academy has been working closely with corporate partners to test and pilot various programs, to better understand the training needs across the organisation. We have seen a lot of interest, engagement and great results from the programs that we have conducted to date, across a broad range of stakeholders. We are confident that we are working in the right direction, on a significant problem being experienced nationally.

The Stone & Chalk Academy is uniquely able to:

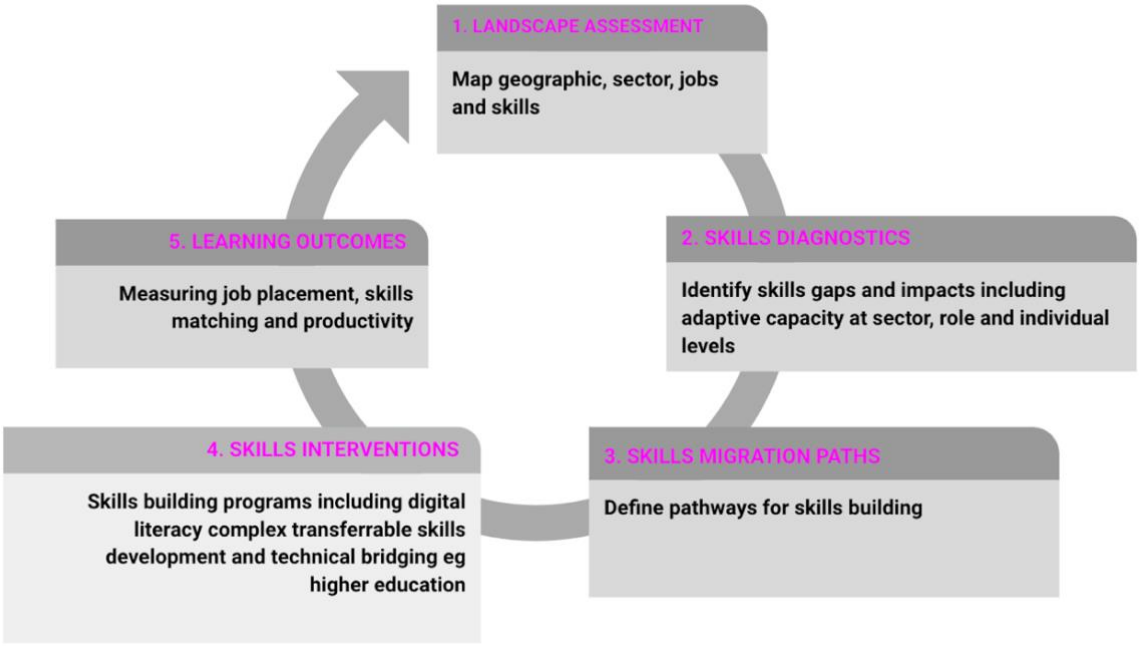
- Sit at the intersection of industry and emerging technology skills building that will drive productivity gains for the economy and long-term employment prospects for Australian workers
- Enable corporates to translate innovative thinking and practice to business outcomes especially at strategic and executive levels
- Offer cross skilling to government, sector leaders and workers by sharing emerging technology concepts and applications to boost productivity and digital literacy
- Provide opportunities for ongoing skills transfer between industry and emerging technology startups and scaleups and vice versa through formal and informal skills transfer models
- Track critical skills development and measure industry impacts
- Provide insights as to skills deficits and hot spots at sector and organisation, even team level
- Provide a comprehensive capability framework and tools to build complex cognitive skills, that provides benchmarks at all skills levels
- Work alongside our partners such as CSIRO Data61 to build advanced enabling technologies that facilitate skills building
- Provide a single source of skills data to industry and government that shows progress and productivity impacts in those sectors that closely rely on emerging technologies
- Foster the sustainability and maturity of emerging technology companies through appropriate transferrable complex cognitive skills building
- Promote fluid skills building mindsets and lifelong learning
- Inform government with skilling demand insights from industry directly to stakeholders like government and especially education providers.

The table below sets out the Australian industry and emerging technology intersection and the quantitative impacts on Australian workers due to automation and augmentation (drawn from the Faethm Report).

Emerging Technology Specialties	Industry/ Sector	Impacted workers (million)	Automated (per cent)	Augmented (per cent)
Health Tech	Health	1.83	11	39
FinTech	Financial Services	0.35	31	34
InsurTech				
RegTech				
GovTech	Public, Administration & Safety	1.33	67	40
(Defence Tech)^	Cyber security*; Defence industry; Space	~0.47	19	35
Clean Tech	Energy	0.11	25	33
Ag Tech	Agriculture	0.31	32	22
Prop Tech	Real Estate & Property	.21	17	37

^While used in the referred report, this is not a widely recognised term – Australian industry refers to this area generally as military grade technologies and includes other emerging technologies such as quantum and artificial intelligence
*Is also an input/ enabler to all specialties

S&C Academy Skills Virtuous Value Chain



Australian industry is at a critical point where the government can lead the way for lifelong learning at every stage of the skills value chain. This is effectively a roadmap to the future. Government can also provide the impetus for the take up of emerging technologies which will ensure the Australian economy remains competitive, namely through economic growth, optimised productivity and workforce employability.

Recommendation 6.1: Extend programs that build adaptive skills and shift mindsets for industry to address new and unprecedented challenges like the recent COVID-19 pandemic that will shift mindsets quickly and bring innovation to a highly competitive and challenging landscape

Recommendation 6.2: Build an enduring, transferrable and universal lifelong skills framework that points to employability applied through the entire education system that reflects continuous industry demands. This framework outlines complex human capability and development pathways

Recommendation 6.4: Build programs to address skills gaps within emerging technology startups and scaleups

Recommendation 6.5: Map industry cross skilling (transition) programs – pre graduate level to extending across working life

The way forwards for lifelong learning

Some 3.71 million workers sit within the sectors most directly impacted by emerging technology that sit within Stone & Chalks auspices. This represents 28.5 per cent of Australia's workforce. We believe Stone & Chalk has an important role to fulfil in providing solutions to Australia's worsening skills predicament.

As Australia's leading impact network, our collaborative initiatives between corporate partners, startups and scaleups, investors, governments, educational institutions and industry at large means that we have the potential to benefit the lives and livelihoods of workers and bring greater value to industry and the economy.

We invite the opportunity to expand upon this high-level proposition further.