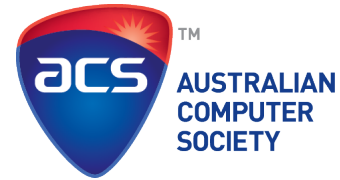


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20 January 2020

Select Committee on Financial Technology and Regulatory Technology
Department of the Senate
PO Box 6100
Parliament House
Canberra ACT 2600
By email: fintech.sen@aph.gov.au

Dear Committee

RESPONSE TO FINTECH REGTECH REVIEW ISSUES PAPER

Thank you for the opportunity to respond to the Select Committee on Financial Technology and Regulatory Technology.

As the professional association and peak body representing Australia's technology sector, ACS' vision is for Australia to be a world leader in technology talent that fosters innovation and creates new forms of value. Our 45,000+ members live across Australia and overseas and are leaders in the tech profession.

In an environment where GDP has slowed and wages stagnated, the global competitiveness of Australia's current and future economy is being further constrained by a growing imbalance between our investment in the Fourth Industrial Revolution compared to that of other nations.

The challenges and opportunities for Australia are clear as evidenced in recent publications. For example, the Harvard study on the sophistication of global economies¹ ranked Australia 93rd between Senegal and Pakistan, a drop of twenty places on the previous ten years. The Harvard researchers use the diversity and sophistication of a country's knowhow to explain differences in country incomes.

Within this context, investing in Australia's human capital is an immediate strategic imperative.

The Australian education system through our Universities and Vocational educating and training providers is performing a vital function preparing students for entry-level positions.

However, the clear gap is upskilling and retraining the existing workforce which has historically been the remit of employers. With the Australian economy ranked 93rd in terms of sophistication, this is an area of market failure and requires intervention.

¹ <http://atlas.cid.harvard.edu/rankings>



We would encourage the Committee’s review outcomes to be very action-oriented. We believe most of the pieces are available on the chess board and require a hands-on co-ordination focus to optimise results in the immediate and medium-term horizons. The one significant piece missing is the reskilling our current workforce.

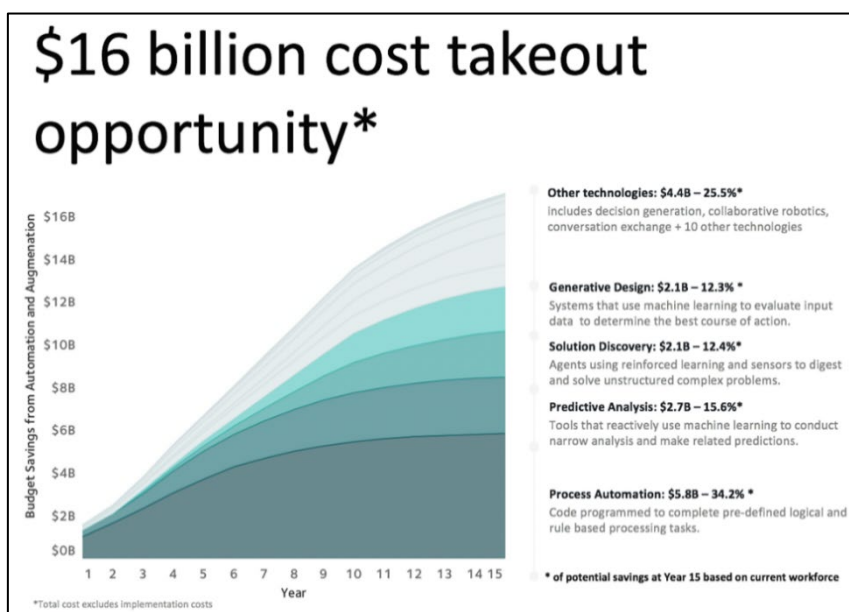
Education and re-skilling the Australian workforce will be crucial to powering new business models, lifting the sophistication of our economy, new job creation and enhancing our exports.

Over the last five years, ACS has worked with Deloitte Access Economics to produce **ACS Australia’s Digital Pulse**, an annual stocktake of Australia’s digital economy. There continues to be pleasing technology enabled economic growth as evidenced by the 2018 trade surplus in ICT services growing 76% on the previous year to \$510m.

Despite this growth, there has consistently been a forecast shortfall of 100,000 tech workers over the next five years just to keep up with current demand. That shortage would need to be doubled to 200,000 to be on par world leading digital economies such as the United Kingdom.

The financial and insurance industry is one of the fastest adopters of technology and the sector will continue to see massive disruption over the next fifteen years as emerging technology augments and automates the workforce.

ACS has work undertaken investigations with Faethm² whose research methodology looks at the technology adoption and s-curves across seventeen technology categories. This analysis has revealed a \$16 billion cost take out opportunity in the sector over the next 15 years. Skilled workers will be critical to fill these new jobs augmenting technologies and expediting this transformation.



² <https://faethm.ai/>

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Please find attached responses against the Issues Paper's five key factors which collectively determine Australia's competitive position to attract and maintain investment in technology, including FinTech and RegTech.

On behalf of ACS, we look forward to supporting the Committee with additional information throughout this important review.

Yours sincerely

Andrew Johnson
Chief Executive Officer



DETAILED RESPONSE TO SENATE SELECT COMMITTEE ON FINANCIAL TECHNOLOGY AND REGULATORY TECHNOLOGY ISSUES PAPER

CAPITAL AND FUNDING

It is difficult to imagine how any investment portfolio including superannuation funds could achieve above average growth without a portfolio that includes tech companies.

Technology is an increasingly important sector in the Australian Stock Exchange (ASX) with the ASX including 21 technology companies with market capitalisation over \$1 billion³ with Tech and Telco companies making up approx. 6% of the ASX's total market capitalisation.

That said, as referenced in the cover letter, Australia's economy ranks lowly in terms of sophistication. Australia ranks 12th out of the 16 countries on business expenditure on research and development (R&D) in ICT, when this R&D is examined as a share of a country's overall GDP⁴. Australian businesses' investment in ICT R&D amounted to 0.14% of GDP in 2015, compared to 1.7% in Korea and 1.6% in Israel (OECD, 2017a).

StartupAUS' *Crossroads* Reports estimates startups are expected to contribute \$192 billion to the Australian economy by 2030. Firms under six years old account for 17% of total employment but create 47% of new jobs⁵.

In Australia, an estimated 97% of start-ups will either exit or fail to commercialise and scale, with failure often occurring between initial funding and commercialisation due to difficulties attracting investment (McLeod, 2017). As highlighted in the **2019 ACS Australia's Digital Pulse** "*Bridging this 'valley of death' gap and matching firms with early stage investment to assist with commercialisation is a major policy imperative for governments looking to promote digital innovation.*"

As a call to action, ACS in our 2019 Federal Election Manifesto encouraged two measures:

- The development of a voluntary accord with superannuation funds where accord signatories commit to allocating up to 0.5% of their funds under management to Australian high growth tech startups as a higher risk asset class.
- Introduce an early stage tech investment initiative within superannuation where individual Australian citizens can allocate up to an additional 2% above the employer compulsory superannuation guarantee – that is removed from concessional contributions cap calculations. This will enable more individual Australians to participate in this higher risk, yet higher growth asset class, while also improving capital flow for early stage tech companies.

³ Page 4. [ASX Fact Sheet: The platform for tech disruptors](#)

⁴ Page 10, [2018 ACS Australia's Digital Pulse](#)

⁵ <https://startupaus.org/document/crossroads-v/>



TAX

As highlighted in the *2019 ACS Australia’s Digital Pulse*, digital investment drives increases in multifactor productivity which in-turn results in per capita income gains⁶. There is evidence that R&D investment and ICT adoption plays a role in driving growth and innovation and therefore improving living standards over time, so it is important to get tax policy settings right.

Much of the current landscape support for early stage tech companies in Australia is directed at the startup itself including direct grants, R&D tax incentives, employee share schemes, and the Export Market Development Grant.

In an environment where funding levers are particularly tight, there is an opportunity to better incentivise investors so a greater share of Australian private capital is diverted from going overseas and instead allocated to early stage Australian tech companies.

The *2019 ACS Australia’s Digital Pulse* includes a stylised scenario showing that the Seed Enterprise Investment Scheme (SEIS) in the UK investors generates **double** the return for investors compared to Australia’s Early Stage Innovation Companies (ESIC).

Remodelling ESIC to match and better the UK’s SEIS would be a low risk, easy to implement initiative that would help ignite capital flows for the high job growth engine room of the Australian economy.

Table 5.2: Stylised scenario – Early stage investment in Australia vs. UK

	Australia (ESIC)	UK (EIS)	UK (SEIS)
Initial investment <i>(amount assumed)</i>	\$200,000	\$200,000	\$200,000
Income tax relief	20% upfront offset	30% upfront offset	50% upfront offset
Net initial investment	\$160,000	\$140,000	\$100,000
Value of shares after 3 years <i>(10% growth p.a. assumed)</i>	\$266,200	\$266,200	\$266,200
Capital gain after 3 years*	\$106,200	\$126,200	\$166,200
Effective annual return on net investment after 3 years	18.5%	23.9%	38.6%

* As the shares have been held for over 12 months, investors are exempt from CGT in all three cases.

⁶ OECD, 2010



SKILLS AND TALENT

There are two aspects to skills and talent; the first being the users of technology, and the second being the developers of technology.

It is well documented that the digital and financial numeracy skills of Australians are falling as best evidenced by a fifteen year declining trend of Australian 15 year olds and their mathematics scores in the Programme for International Student Assessment (PISA).

These comparative capabilities challenge both technology augmentation in the workplace, consumer technology adoption, and the mobility of skills for sizeable reskilling programs across the Australian workforce.

In term of developers of technologies and ICT systems, we would advocate for the establishment of an Industry 4.0 Skills Fund where the delivery of micro-credentials could be rapidly deployed across the Australian workforce in emerging technology areas such as artificial intelligence and data science with an immediate lift in productivity and wages.

Australia's 'Professional, Scientific and Technical Services' sector recorded the strongest employment growth of all industries, rising 64,000 people (6.2%) for the year ending June 2018⁷. Digital reskilling can lead to increased wages for the individual worker, and in turn, revenue for the rest of the economy.

The **2019 ACS Australia's Digital Pulse** estimated the benefits of digital reskilling by using wages as a proxy for the marginal product of labour in the economy. Earlier editions of the Digital Pulse found around one in four technology workers had a previous job that was a non-technology role, and the most commonly studied degrees amongst technology workers are business areas such as management, marketing and accounting (DAE, 2018).

This suggests that the wages of workers in other professional industries, including business-related fields, could be a relevant comparison point to technology worker wages. Under this approach, the average benefit is estimated to be around \$11,100 per year – the difference between the average annual wage earned by technology workers (around \$100,700 in 2018) and workers employed in professional industries (\$89,600).



If we apply this to a stylised scenario, imagine issuing 50,000 micro-credentials across the Australian economy in emerging technologies that resulted in an uplift of \$11,000 in wages per worker? That would be the equivalent of \$550m in increased wages in the economy, and an extra \$203.5m in government revenue from Pay as You Go income tax (based on rate of 37%).

⁷ [ABS 8155.0 - Australian Industry, 2017-18](#)



CULTURE

While Open Banking is primarily about efficient, safe and secure data flows using an open standard for Application Programming Interfaces (APIs), we feel it is equally important to emphasize the non-technology related aspects under culture.

The vision of Open Banking is to empower consumers, giving them control over their data, greater visibility of competitive products, and ease of mobility across products and providers in a safe and trusted way, and lowering costs through increased competition.

Australia's Consumer Data Right (CDR) legislation will ultimately be judged against increased competition and consumer movement across products by enabling consumers to share their data with third parties. If adoption is weak, the main objective will be lost, and we won't see the downstream innovation on products and services that address new pain points to the degree of which a modern economy placed higher up the value chain requires.

Imagine a world where there is the equivalent of an exchange settlement account for everybody, accessible via open banking and open transactions. Such a vision opens up a myriad of possibilities for fintechs and drives the pursuit of efficiency dividends by traditional providers.

REGULATION

In the current landscape:

- new entrants find difficulty in complying with regulations, compounded by the difficulty for regulators to properly assess risks of new products using emerging technologies. New entrants then feel forced to implement older style products to meet regulators' requirements.
- Some regulations have been ineffective for example; ATM direct charging (banks now closing ATMs); merchant surcharges (suppliers able to charge more than cost, and not offer alternatives); New Payments Platform (NPP) low take-up; PEXA duplicate of NPP makes it harder to enter market.
- Welcomed initiatives such as open banking and new banking licenses remain difficult to implement or provide barriers for new players.

Through the review we would encourage;

- Recognising technical expertise and innovation as the driving force behind financial modernisation. The nation's future leaders in finance and regulation need to be tech savvy.
- Continued professionalisation of the workforce as technology changes the nature of work and the system will only be effective if it delivers trustworthiness.
- Focus open banking on open transactions and incentivise adoption of NPP extensions to allow third parties to access such as pull payments, QR codes, request to pay, and alternate addressing.



- Greater harmonisation of regulations between states, and even between countries. For example, harmonisation of the rules for property settlement would ignite innovation in the Property Settlement space.
- Increased use of regulatory sandboxes.
- More visible coordination of Private Sector, Tertiary, Government and Start-Ups.
- Considering the ASX CHESS replacement as an opportunity for FinTechs and RegTechs to provide services to the Financial Markets ecosystem leveraging ASX's connectivity and customers.
- Removing barriers for neobanks to increase sector competition, and create new business models, products, services and experiences.
- A 'Rules as Code' strategy whereby the language of legislation is formalised and implemented into formats that are machine readable. Once implemented these platforms could serve to create a more consistent regulatory framework for the delivery of services thus increasing efficiency leading to reduce costs and resources whilst also serving to increase customer satisfaction.

The 'Rules as Code' strategy would optimise the efficient sharing of data ability with regulators lowering the cost on monitoring, and increasingly removing the vagueness of compliance and risk so that the playing field is more level.

While not regulation per se, another area we would encourage the Committee to consider is that of **Portable KYC/AML** (Know your Customer/Anti-Money Laundering).

Secure and portable digital identity and KYC/AML is a genuinely complex challenge. The ultimate goals of implementing portability are to remove duplication of effort and cost for the industry, improve the quality, speed and accuracy of identity verification and to free individuals to move between institutions whilst retaining ownership and control of their personal data.

From a governance perspective, comprehensive, cross-institution auditability and traceability are the most valuable advantages of a common, verifiable, immutable digital identity.

To make portability work, however, one has to bridge between centralised and decentralised concerns. The government must be able to apply centralised control over what would effectively be a decentralised system to protect individuals and the system from bad actors (both institutional and individual). One of the interesting challenges of a secure, immutable and auditable identity is that it makes it extremely difficult to create new identities that Government may require, for example, for national security, child or witness protection reasons. There are always complex trade-offs between transparency, security, and control when it comes to identity.

Verifying identity is the critical element in KYC/AML. Today the only real way financial institutions are able to identify that you are who you say you are is by comparing your face to your identity documents (licence and passport) usually in person however not always. Today, financial institutions rely heavily on verifying the integrity of the identity document numbers presented to them against a master database, however, this is a weak system that can be easily exploited.



A potential improved framework in this space would:

- Allow an institution to KYC/AML check an individual for their own purposes, then open accounts for them, as they do now.
- Each successive check/verification would be added to an ever deepening shared, individual, identity record for access by other institutions who need to conduct KYC/AML checks.
- There should be a minimum threshold of institutions verifying your identity before it counts as ultimately transferable (this stops a single bad actor/institution from allowing people in and percolate through the entire system)
- There should be an ability for the government to audit any sign-offs by institutions, to ensure they're acting as they should.
- There should be the ability for the government to flag an individual as needing more checks and effectively suspend their accounts.
- There should be the ability for the government to flag an institution as not being trusted currently or for a specific period of time, which would reduce the credibility for their existing and new checks to be trusted by other institutions.

Together this results in an ever-deepening digital fingerprint of an individual. A scoring system that qualifies the trustworthiness of each institutional verifier who adds to the deepening digital fingerprint. The deeper the fingerprint the harder it is to fake and the more trustworthy it becomes. In terms of portability (digital ID) there would have to be a threshold before it becomes portable, but at any time if one of the institutions that gave you points to get over the threshold becomes less trusted for the timeframe they signed off on your ID, then other institutions can be asked to step in to top up the trust in your identity.