Digital assets in Australia

Final report

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The TCA is Australia's peak industry body for the tech sector.

The TCA has set three goals for the tech sector in Australia:

- Employ 1.2 million people in tech-related jobs by 2030
- Contribute $250 billion to GDP from tech-related activity by 2030
- Make Australia the best place to start and scale a company

Working collaboratively with governments, businesses and the community, the TCA's focus is on supporting growth and local and global investment in the Australian tech sector, creating more Australian jobs and pathways into them, and partnering to design safe and effective regulation.

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Digital assets (DA) have the potential to transform our lives offering significant time and cost savings to individuals and businesses

Australia could **add up to $60B per year to national GDP** by 2030 by supporting a responsible DA sector underpinned by the appropriate policy and regulatory settings

Appropriate policy action could see **700-1000 new start-ups** and **$15-20B in investment** in the DA sector in 2030

The DA sector could contribute **$10-15B in tax revenue** in 2030

DA could contribute to a further **80% reduction in retail payment costs** by 2050

Australian businesses could save **200 million hours** per year by using DA to automate GST compliance and administration

Instant settlement of business transactions could benefit the **4,000 businesses each year** that fail due to poor cash flow

Consumers could save almost **$4B per year, or $160 per person** by using **DA for international transactions**

By **unlocking the benefits of DAOs**, community groups and businesses can **automatically and transparently** spend funds

Merchants can **save $300M** per year in losses avoided from fraud due to the **improved security of DA** over traditional payment cards

DA could represent over **20% of retail payments** by 2050, or **up to 100% of payments** if a retail CBDC is introduced

Blockchain and digital twin NFTs can allow consumers and businesses to **verify provenance** and **environmental impact** of a supply chain

DA record-keeping can save small businesses up to **400,000 hours per year** in preparing documents for business loans

Notes: All currency references are in $AUD unless otherwise stated. See appendix 1 for full methodology and additional detail on key statistics.

Executive summary

Trusted digital assets can transform our lives.

Digital assets - such as private stablecoins, Central Bank Digital Currencies (CBDCs), tokens and cryptocurrencies - are a collection of technologies that enable digital representations of value to be transferred, stored and traded electronically.

They are supported by complementary innovations such as Blockchain, smart contracts, Decentralised Autonomous Organisations (DAOs) and Decentralised Finance (DeFi) that are collectively decentralising governance and administrative structures, and enabling greater transparency and traceability in transactions and decisions.

Trust is a critical component to a well-functioning economy. Currently, this requires a range of costly intermediaries and administration activities. With digital assets, trust is embedded in transactions through technology, offering counterparties safety, efficiency and security in an exchange.

Responsible digital assets innovation can transform our lives. Digital assets can make payments, transactions and interactions easier, better and safer. They will allow easy and accurate tracking of supply chains. They will save thousands of hours of administration, and provide greater protection from fraud.

Australia could be a leader in responsible digital assets innovation.

Despite the current downturn in the value of cryptocurrencies, the digital assets sector represents a significant opportunity for Australia. With the appropriate policy settings and regulations, the digital assets sector could add up to $60B per year to the Australian economy.

Australia is well positioned to capture this opportunity. Australia is a regional financial hub with much of the infrastructure in place to support a flourishing digital assets sector. We have excellent digital inclusivity, effective institutions, a successful RegTech sector and have the capacity to materially increase our data storage solutions –a key point of difference with many of our regional peers.

Australia can play to these strengths to be a leader in responsible digital asset innovation.

However, when compared to global peers, we compare less favourably on a few key metrics. We are facing a tech skills shortage as demand is already outpacing supply and digital asset firms across the nation struggle to secure staff. Fewer digital asset startups and patents originate in Australia versus other markets, indicating a lack of innovation in the ecosystem. And finally, investment into the sector is lagging peers.

A principles-based regulatory approach will enable Australia to become a leader in responsible digital assets innovation.

Australia's approach to the regulation of the nascent sector can be described as 'precautionary'. However, as the technology matures and its potential impacts become widespread, a more proactive and considered approach to regulation should be taken.

Regulation of digital assets should support four key objectives:

1. To support Australia to become a leader in responsible digital asset innovation
2. To unlock economy-wide benefits of digital assets technology
3. To promote financial and digital inclusion
4. To protect consumers, businesses and financial stability.

To achieve these objectives, policymakers should adhere to four guiding principles;

1. Outcomes-based regulation
2. Agile, iterative and collaborative design
3. Global market-focused
4. Risk-calibrated regulation.

This approach to regulating the industry could catalyse $15-$20Bn in additional investment, $10-$15Bn in additional tax revenues, $160 per person in transaction fee savings and 80 hours of time saved per business annually by 2030.

Action is required to capture this opportunity.

Many governments globally are moving to put in place new frameworks for regulating digital assets. The Monetary Authority of Singapore issued guidance on Digital Token Offerings as far back as 2017, the UK began its digital assets journey in 2018 and in 2022 announced plans - including the recognition of stablecoin as payment - to make the UK a "global crypto-asset technology hub", and in March 2022 the Biden Administration released an Executive Order on digital assets policy.

Domestically, the Australian Government has also taken positive steps to support the industry, beginning a process of consultation with industry regarding a number of the key steps that need to be taken to regulate the sector in a responsible and sustainable way.

Australia has the opportunity to be a leader in responsible digital asset innovation and use.

To do this, government and industry must work together to design a modernised regulatory framework, and a growth strategy for trusted digital assets recognising the potential for this sector to drive innovation, investment and jobs.

Contents

01

Digital assets include a range of technologies that enable digital representations of value

Digital assets (DA) encompass a range of emerging technologies supported by complementary innovations

Exhibit 1: Taxonomy of DA technologies

Digital money

Central Bank Digital Currencies

A virtual form of a sovereign currency which is expected to typically serve as legal tender

- Swiss e-krona
- Chinese e-CNY

Stablecoins

A DA that can maintain a stable value (backed), often pegged to a commodity or fiat currency

- The Gemini Dollar
- Tether

Cryptocurrencies

Tradable, non-backed, DA which use cryptography to record transactions on a distributed ledger

- Ethereum
- Bitcoin

Tokens

Security tokens

Tokens which provide a stake in an entity or asset, often generated through initial coin offerings (ICO)

- Bankera's BNK token

Utility and community tokens

Provide owners with the right to access a product or service in the future, usually from the token issuer

- Golem
- Filecoin

Non-fungible tokens

Certification of an asset (either digital or physical) as non-interchangeable and unique (e.g. artistic works, access rights) recorded on a digital ledger

- Grimes' WarNymph
- Beeple's "Everydays: The First 5000 Days"

Complementary innovations

Blockchain

A distributed public ledger of all transactions that records transactions made on the network

Smart contracts

Code that is programmed to execute automatically when certain conditions are met

Web 3.0

Championed as the next iteration of the internet, Web 3.0 is based on blockchain technology, facilitating decentralisation

Decentralised Autonomous Organisations (DAOs)

Organisations that are completely democratic and run on smart contracts with membership usually gained through token purchases

Decentralised finance (DeFi)

An approach to governing and administering transactions using smart

Sources: European Parliament (2020), Cambridge Centre for Alternative Finance (2020), Wilkshire (2021), Milken Institute (2021), OECD (2018). Notes: See appendix 2 for list of keywords used in subsequent analysis.

DA technologies can build confidence in transactions reducing the cost and administration involved to develop trust

Exhibit 2: DA technology increases efficiency and innovation across the economy through automation of trust between parties

Examples	FROM: Trust in economic transactions built upon costly intermediaries, contracts and administration	TO: Trust is embedded in transactions through technology, offering counterparties safety, efficiency and security in an exchange
Banking 	Bank transfers can take up to 3 days to settle as it involves a complicated system of reconciliation across intermediaries, correspondent banks and custodial services.	Seamless instantaneous transactions through a consensus, immutable record using CBDCs, stablecoins and other digital assets.
Supply chains 	Individual companies monitoring products within an industry can find it difficult to track the movement across the entire value chain.	Blockchain provides a mutually agreed decentralised record of a product's journey through its lifespan, where all participants in the value chain can observe the product's status and movement.
Invoicing 	Invoicing and payment require two parties to mutually agree, sign and lodge paperwork to settle a transaction.	Smart contracts enable invoicing payments to be automated upon conditions being met, improving supply chain and operations efficiency.
Personal data 	Consumers trade their personal information and data for free access to social media.	Users control their data and the ability to monetize it themselves through community tokens.
Open innovation 	Siloed approaches to software development with limited ability to leverage and combine existing products, services and innovations.	Composability, where a mutually agreed foundation of interoperable, permissionless open-source protocols which can be combined and built upon by different parties accelerates innovation to create new products and services e.g. dApps
Decision making 	Operations of public companies, government and charities are opaque requiring significant administrative overhead to agree and execute decisions.	DAOs can increase public trust by making decisions and transactions and procedures automated and transparent.

Trust is a critical component to a well-functioning economy as both parties in a transaction need to have confidence that obligations by the counterparty will be fulfilled.

A range of services and intermediaries have evolved over time to build trust between two parties who may not know each other. Financial institutions such as banks act as trusted third parties, escrow services hold assets mid transaction and legal services write and uphold contracts. All these activities to build trust cost time and money, creating inefficiencies.

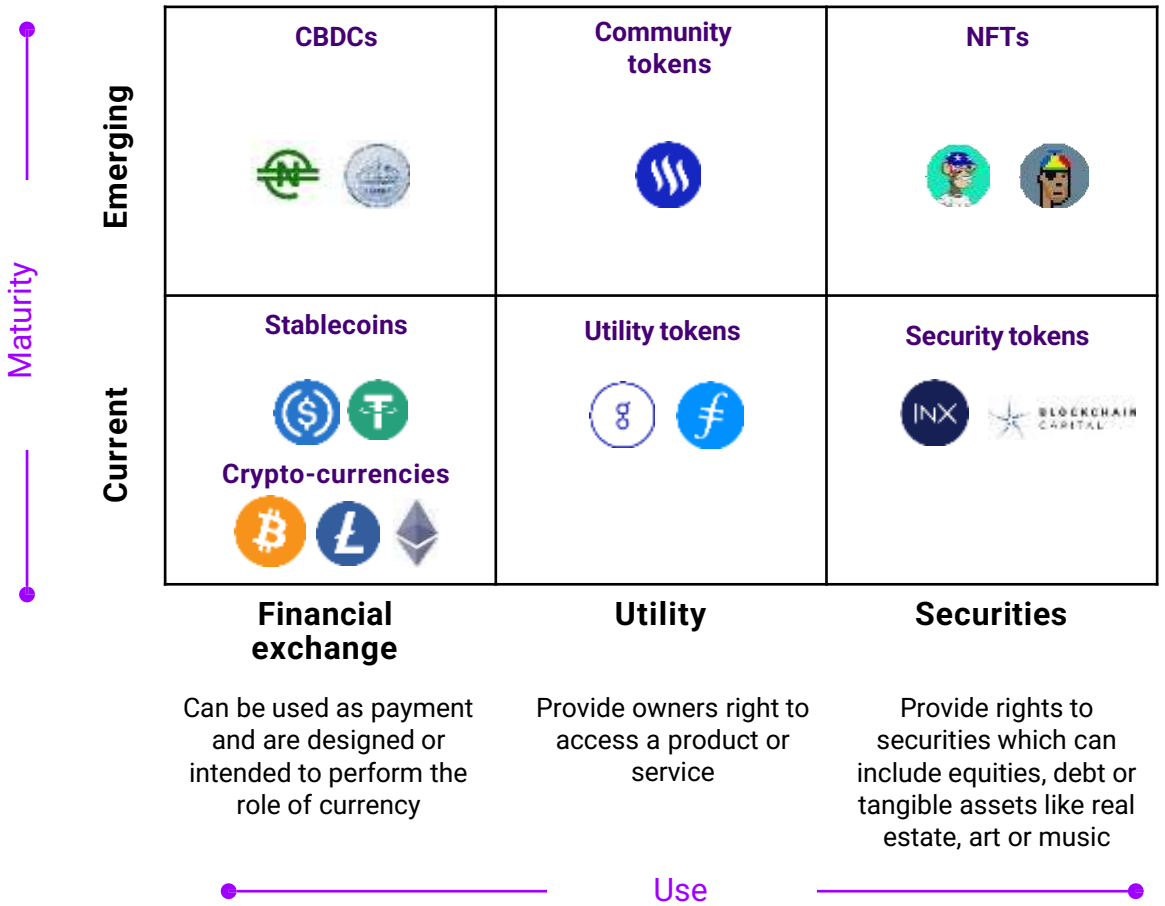
DAs, facilitated by distributed ledger technology, automate trust through commonly agreed transactions recorded on the blockchain. On-chain transactions are immutable, transparent and secure, creating a new platform for business and community relationships that are easy to use and low cost.

A considered regulatory framework is also necessary to promote trust in DAs. Regulatory gaps can undermine trust if companies act improperly or create financial instability. Good regulation can help DAs reach their potential while minimising risks.

Sources: Bank for International Settlements (2020), CBInsights (2021); Analytics Insight (2021), CoinGeek

The future of digital finance is rapidly evolving with an expanding set of uses and benefits for DA

Exhibit 3: Digital finance landscape



Key benefits and use cases

CBDC	Has state sponsorship meaning central banks control money supply while **improving efficiency of monetary and fiscal policy**
Stablecoins	Backed by a fiat currency, **reducing volatility in value**, providing a more stable medium of exchange
Cryptocurrencies	Enables the digital **exchange of money without the need for intermediaries**. Money can be programmed for use on specific items or with time limits.
Utility tokens	Allows for a **secure, transparent and decentralized access to goods or services** (e.g. access to data, storage, computing power)
Community tokens	**Incentivises participation** in online communities via activity, rather than sale of data
Security tokens	Allows for **secure** trading with **regulations encoded** in the token ensuring no breaches occur. Security tokens can include **fractional ownership** of assets like real estate, ensuring liquidity of assets.
NFTs	Ensure **security and authenticity** while providing artists and makers with more **efficient** means of monetising their work

Sources: Voshmgir (2020), CoinMarketCap (accessed 2022), CoinGecko (accessed 2022), CBDC Tracker (2022); Steem Block Explorer (accessed 2022).

Australia has an emerging digital services sector that uses DA technology to provide innovative financial, payments and exchange services

Exhibit 4: Overview of Australia's digital services ecosystem

Australian firms (not exhaustive)		Key benefits
Digital currency exchanges	swyftx.com.au, COINJAR	▪ Has the potential to become a **significant employer** in Australia, with exchanges currently creating over 750 Australian jobs ▪ Provides a level of **security and convenience** for holding and exchanging digital currencies
Digital asset mining	Mawson Infrastructure Group Inc., Holon	▪ Creates **regional jobs**, with some of the largest mining operations in Byron Bay and the Hunter Valley ▪ **Leverages local advantages in wind and solar,** as DA networks are largely powered by renewable energy
DeFi and applications	SYNTHETIX, finder	▪ Improves **access to finance and facilitates lower cost financial products** ▪ dApps support **innovation**, improved security and trustless activity
Custodians and management	CUSTODIAN VAULTS — Vault with Confidence	▪ Provides **secure safekeeping** of DA, reducing the risk of loss and theft ▪ Facilitates **portfolio diversification** and higher rates of return relative to other asset classes
Payment gateways	afterpay, zepto	▪ **Enables payments** for goods and services using digital currencies ▪ **Enables merchants to make, manage and receive payments in real-time** by connecting them directly to their customers bank accounts and data

Sources: IbisWorld (2022), The Block Crypto (accessed 2022), Emergen Research (2020), MarketsandMarkets (2021), Industryarc (accessed 2022), Business of Apps (2022)

02

Digital assets will change the way we work and live

DAs will have far-reaching impacts on our day-to-day lives, offering greater ease and flexibility

This is Jo.

Jo lives in a regional town in Victoria. She is a member of her community tennis club and owns a small business that sells artisanal cheeses. Jo uses DA technology to make her day easier and more productive.

Modernised memberships

6.30am

Jo opens a message from her community tennis club which she joined by purchasing a **utility token, granting her access to the benefits of club membership.** The club is set up as a **decentralised autonomous organisation** (DAO), meaning all members have equal rights and decisions are made by vote. This morning, Jo is invited to vote on a proposal to upgrade the club's facilities. The club's code is written so that if a majority of members vote in favour, funds will be instantly and transparently paid to start work immediately.

Instant international payments

7.00am

Before heading to work, Jo gets a call from her daughter, Jess, who lives in London. Jess urgently needs $200 to pay her rent for the month. Jo uses **Stablecoin** to instantly and securely send money to Jess at a fraction of the cost of traditional international wire transfers.

Supporting local talent

8.00am

On her way to work, Jo listens to some podcasts from her favourite local journalist. **Smart contracts** ensure that the journalist is paid in real time for every second of audio that is listened to. Jo also buys a **community token** to support the journalist, and gains early access to podcasts as a reward.

Jo no longer has to…

- ✖ attend club meetings or appoint a proxy to vote
- ✖ trust a treasurer to collect and manage club finances

26% of non-profits that had assets stolen in FY19 reported that the **perpetrator was a staff member of volunteer**, such as a treasurer.[1]

- ✖ pay 5-10% of the transfer amount in international wire transfer fees[2]

DA technology will save Australians about **$750 million per year** on remittance fees.[2]

- ✖ worry about her support growing the profits of a large corporation, rather than supporting the content creator directly

Sources: 1. Institute of Community Directors Australia (2019) 2. World Bank (2018 2021), TransferWise (2017), Accenture analysis

Businesses will be able to operate more productively by streamlining transactions and processes

Real-time payments — 10.15am

Jo has contracted a local processor to pasteurise and deliver the milk used for her cheese. Rather than paying for the milk 90 days in advance, by using **Stablecoin** technology, Jo only pays for the milk once it is unloaded from the delivery truck into her warehouse. **Distributed ledger recordkeeping** also guarantees that Jo always has an accurate view of inventory levels.

Supply chain insights — 1.00pm

Jo has invested in **digital ledger tracking software** which provides a transparent and immutable record of supply chains. Jo can **create a digital twin NFT** for each wheel of cheese to prove to her customers that they are locally produced, generating new export opportunities for her business. Because the software can also verify that Jo's supply chain uses energy from renewable sources, Jo also receives emissions abatement credits.

Instant loan approvals — 3.30pm

Later that afternoon, Jo applies for a business loan through a decentralised peer- to-peer lending platform. The platform's **smart code** can automatically verify **non-fungible tokens** which represent the business's assets, as well as analysing transaction data to assess credit worthiness, allowing the platform to instantly approve the loan.

Jo no longer has to…

- ✘ wait up to 5 days for the payment to settle and be left with low cash on hand
- ✘ unexpectedly run out of stock due to errors in inventory records

In the 2019 financial year, 51% of liquidated businesses cited **inadequate cash flow** as a cause of business failure.[1]

- ✘ have customers question the provenance of her artisanal cheeses
- ✘ waste money due to avoidable food spoilage

Provenance tracking can be used to combat 'food fraud', which **costs Australian producers $2-3b per year**.[2]

- ✘ gather many disparate items of documentation
- ✘ spend hours with a loan officer
- ✘ wait weeks for the loan to be assessed

Around half of small business borrowers report that it takes **over two hours to gather necessary documentation** for business loans.[3] Assessment processes for small business loans can take up to **4-5 weeks**, which causes problems for small businesses that are seeking funding to address cashflow issues.[4]

Sources: 1. Australian Securities and Investments Commission (2019). 2. AgriFutures (2021). 3. Oliver Wyman (2017). 4. Productivity Commission (2021).

Individuals will be able to access government services more efficiently and securely

Effortless accounting

5.45pm

Before leaving work, Jo checks her sales figures for the day. Because Jo's business uses a **smart contract** to automatically route **CBDC** to the ATO as GST the point of sale, she does not need to prepare tax records for her accountant.

Smarter stimulus payments

5.50pm

The government has launched a scheme to increase business activity in Jo's bushfire-affected regional town. The statewide scheme provides each resident with $500 of **CBDC**, which is programmed so that it can only be spent in bushfire-affected areas within the next 2 months. Because of this scheme, Jo notices a significant increase in sales to out-of-area customers.

Seamless digital logins

9.30pm

That evening, only hours before the deadline, Jo begins an online small business grant application through an online Government portal. Jo had not logged into the portal in a while. However, she can instantly login without a password using her phone, which generates using a **non-fungible token** representing her **decentralised digital identity**.

Jo no longer has to…

- ✘ spend hours each week preparing sales records for her accountant (who she must also pay for)

Automatic routing of GST payments could save small businesses an average of over **80 hours** and **$6,000 per year** on admin and compliance costs[1]

- ✘ see minimal impact of the government scheme, since the money is usually saved or spent in major cities, or delayed due to administrative processes

- ✘ call up the helpdesk and wait for an agent to help her
- ✘ guess the answers to secret questions she set up years ago
- ✘ reset her password and login

Individuals spend an average of over **10 hours per year** entering and resetting passwords,[2] with **60% of consumers missing out on a time-sensitive transaction** (e.g. event tickets) due to forgotten account passwords.[3]

Sources: 1. MYOB (2015). 2. Ponemon Institute (2019). 3. Mastercard (2015).

Safe, measured transitions to DAs can make Australian's lives easier, better and safer

Easier

Instant settlement of business transactions **could benefit the 4,000 businesses each year that fail due to poor cash flow**.

Australian businesses can **save up to 400,000 hours per year** by not having to prepare documentation for business loans, as business records will be stored and verified on a distributed ledger.

Automatic GST payments at the point of sale could **save businesses 200 million hours** on GST compliance and administration each year.

Better

Community organisations and businesses will be able to **automatically and transparently** spend money as soon as members approve a proposal.

By proving the provenance of their products using distributed ledgers, businesses can **save up to $2-3b per year** by combatting 'food fraud'.

Businesses could receive up to **40% more revenue from time-limited programmable stimulus** payments compared to traditional stimulus payments

Safer

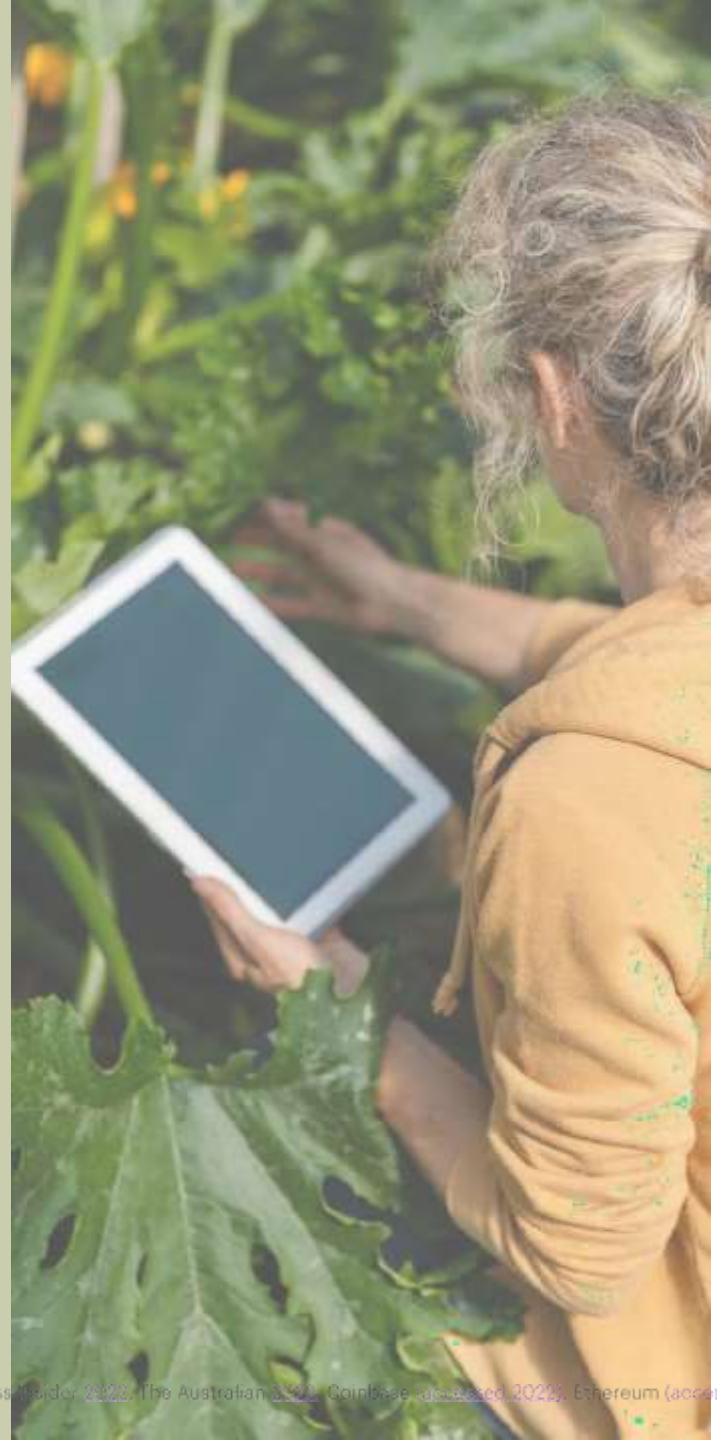
Artists and content creators can be **paid for their work in real time**.

By using stablecoins and digital ledger technology for secure international payments, Australians can **save $160 per person** per year in international transactions fees.

Users can seamlessly and securely login to their online accounts using their decentralised digital identity, saving each person **10 hours per year** on entering and resetting passwords.

Sources: ASIC - Insolvency Statistics Table 3.3.6, Australian Banking Association (2020), Oliver Wyman (2017), World Bank (2018, 2021), TransferWise (2017), Ponemon Institute (2019), MYOB (2015), ABS - Counts of Australian Businesses (2021), AgriFutures (2021), Australian Financial Review (2019), Accenture analysis

DA technology supporting environmental sustainability



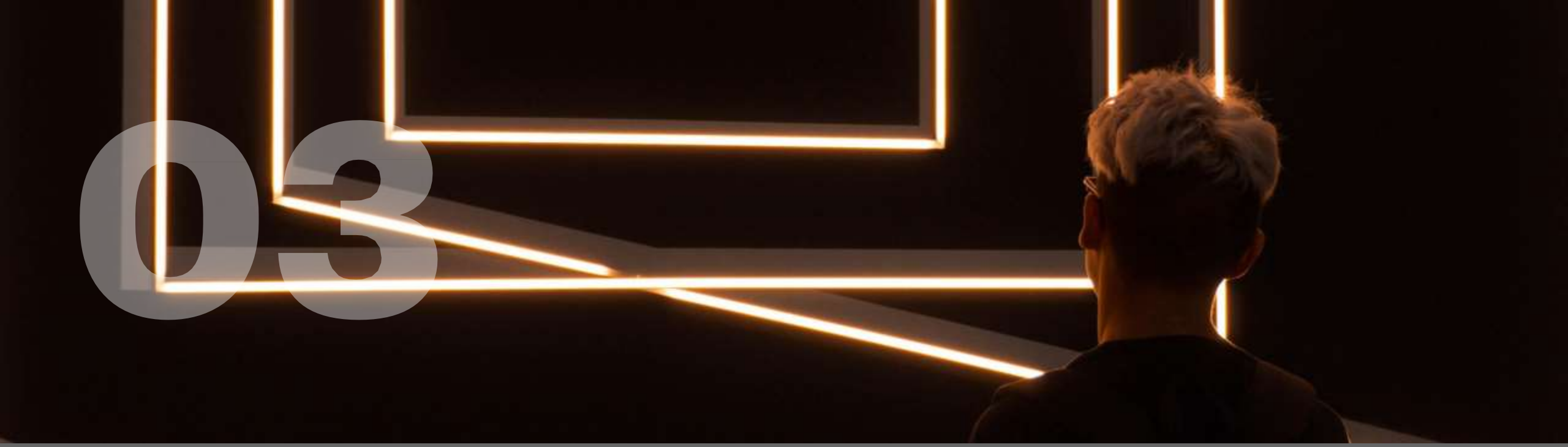
DA technology has huge potential to support global environmental sustainability goals

The World Economic Forum's Mining and Metals Blockchain Initiative aims to accelerate an industry solution for supply chain visibility and ESG requirements. The initiative was established in 2019 with founding partners Anglo American, Antofagasta Minerals, Eurasian Resources Group, Glencore, Klöckner & Co, Minsur, and Tata Steel with an aim to accelerate an industry solution for supply chain visibility and ESG requirements. In 2020, a proof-of-concept Carbon Tracing Platform was launched, focusing on end-to-end traceability of CO_2 emissions, using blockchain technology.

Tokens, representing carbon offsets and underpinned by smart contracts and blockchain technology are gaining popularity. Some – such as Single. Earth aim to improve traceability and transparency in the carbon market, while others such as the Carbon Utility Token focus on allowing users to store, distribute, track and ultimately retire carbon offsets. KlimaDAO is a decentralised autonomous organisation (DAO) that allows people to purchase Base Carbon Tonne (BCT) tokens - which are linked to carbon credits - with Klima tokens. The DAO then keeps the BCT tokens in its treasury, removing them from circulation. More than 14 million BCT tokens have followed this route and can't be used for carbon offsets.

The crypto ecosystem is becoming greener. While proof-of-work mining (requiring virtual miners to continuously solve puzzles) is very energy intensive, a shift is underway to proof-of-stake (which instead requires validators to "stake" crypto to incentivise activity in the interest of the network). Networks such as Ethereum are making the shift to proof of stake, claiming it will reduce energy consumption by 99.95%.

Sources: WEF (2020), CUT (accessed 2022) , Business Insider 2022, The Australian 2022, Coinbase (accessed 2022), Ethereum (accessed 2022)



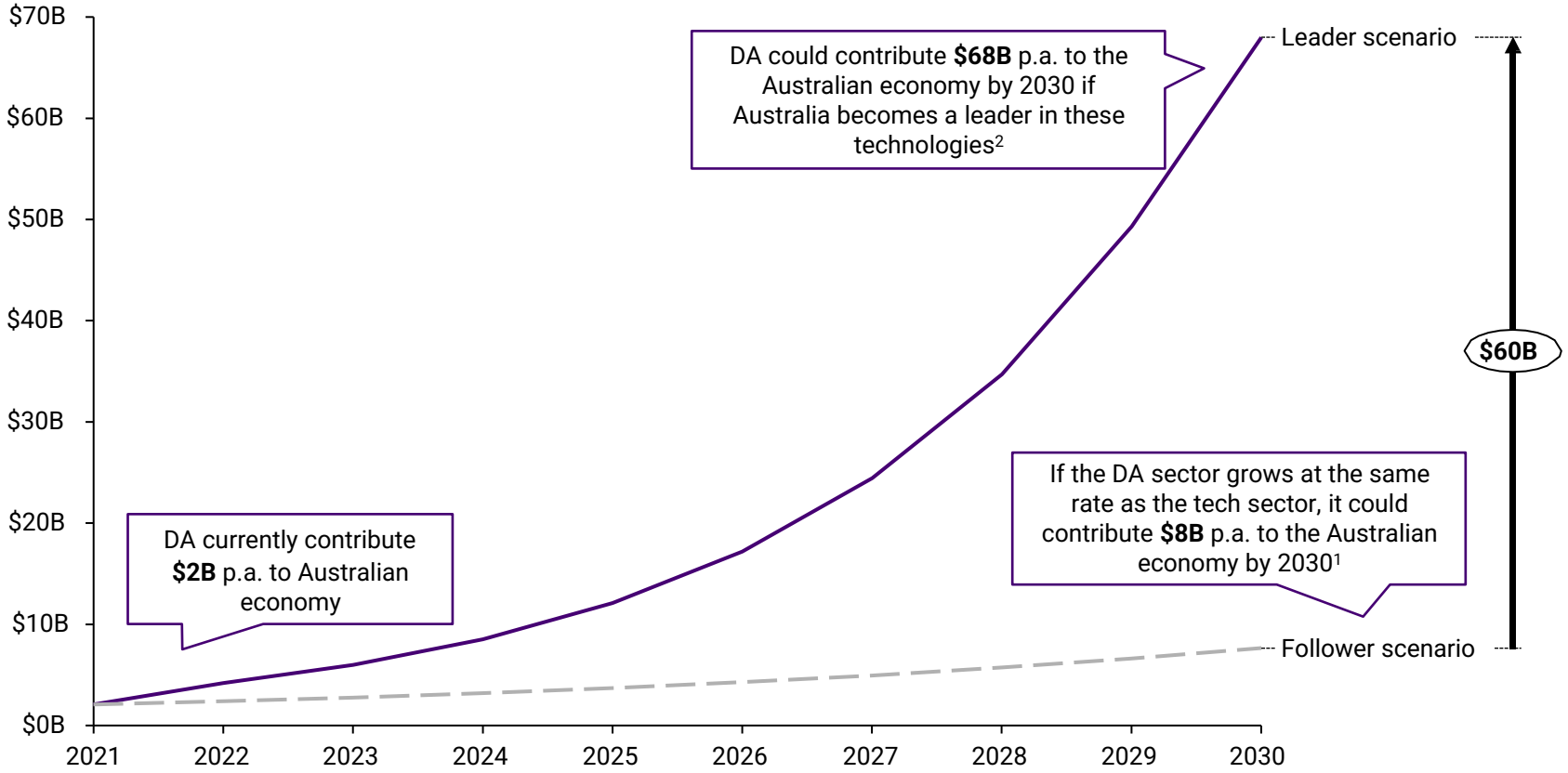
03

Australia can grow a responsible and thriving digital assets sector by improving levels of innovation and investment and building our skills base

Australia has an opportunity to add up to $60B per year in gross value added by becoming a leader in DA

Exhibit 5: Projected contribution of DA sector to the Australian economy per year

$ billions of gross value-add per year from 2021 to 2030, by scenario



If Australia capitalises on the DA opportunity, the sector could contribute over $68B in gross value added to the Australian economy by 2030. In 2021, the domestic DA sector contributed $2B to the Australian economy. With appropriate policy, skills and investment settings, the Australian sector could grow over 30-fold over the next decade.

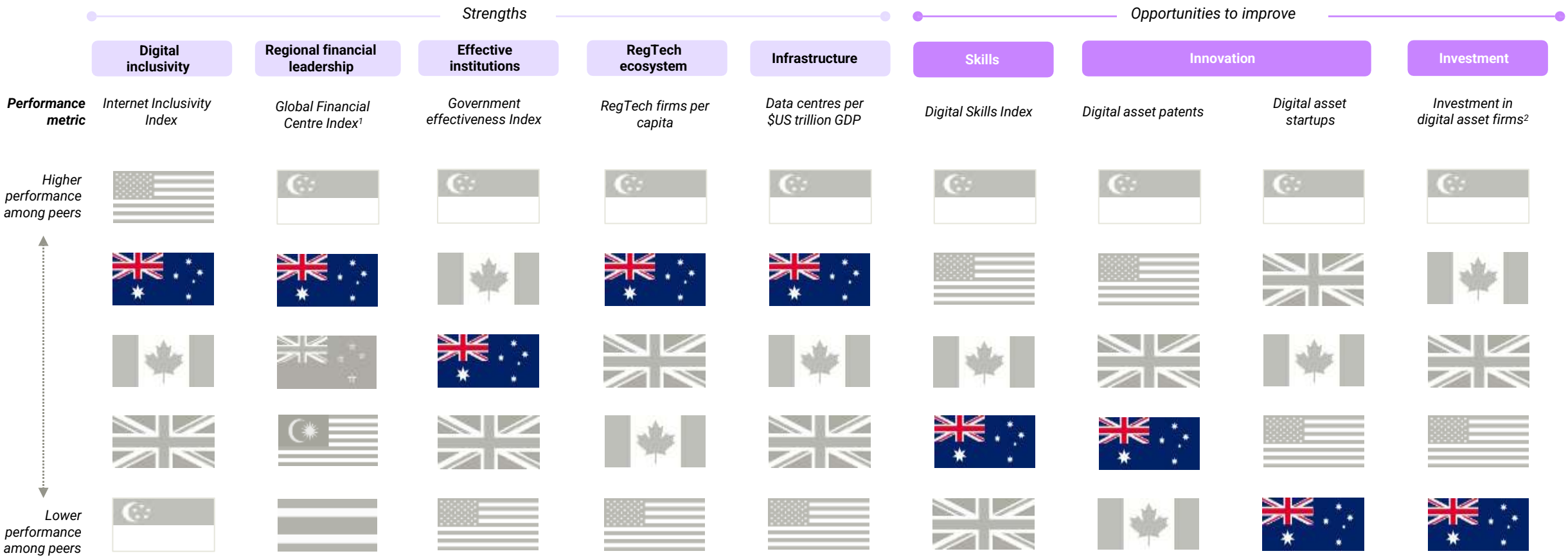
Leadership in the sector offers substantial benefits for businesses and the community. As the global economy becomes increasingly interconnected and digitalised, leadership in DA will ensure that Australia maintains sovereignty over its payments and financial system. Leadership in DA can allow Australia to diversify its economy and grow an important new local industry.

However, if Australia does not act to capture this opportunity, the sector's growth to 2030 will only reach $8B. In this follower scenario, Australia allows the DA sector to grow at the same rate as more mature parts of the Australian tech industry, missing the opportunity to capture the rapid growth of an emerging sector.

Notes: The follower scenario assumes that the growth rate of the economic contribution of the Australian DA sector is the same as that of Australia's tech sector between 2016-7 and 2020-1. Growth trajectories assume constant growth rate. Sources: 1. Mawson (2021), 2. Tech Council of Australia (2021), Accenture analysis. 3. Burning Glass Labour Insights, Accenture analysis.

Australia has some clear strengths, but to be competitive it needs to improve on skills, innovation and investment

Exhibit 6: Australia's performance in key digital asset industry metrics among its international peers[1]



Notes: 1. For most international comparisons, Canada, Singapore, United Kingdom and United States are chosen as international peers because they have comparable regulatory and financial structures to Australia. For 'regional financial leadership', the top 5 countries in South-East Asia (defined as ASEAN plus Australia and New Zealand) according to the Global Financial Centre Index are included, with Singapore ranking 1st , Australia 2nd, New Zealand 3rd, Malaysia 4th and Thailand 5th. 2. Australia also ranks last among its peers in funds raised through Initial Coin Offerings.

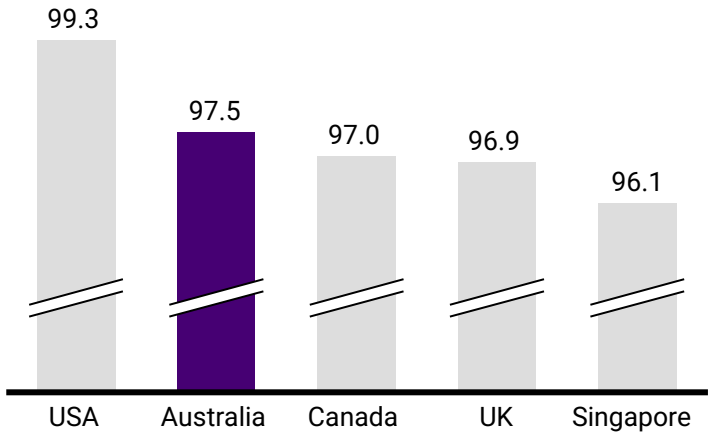
A growing DA sector in Australia will be supported by Australia's strong digital inclusivity, regional financial leadership and effective institutions

Digital inclusivity

Australia has a high level of digital inclusivity, ranking 4th in the world for internet inclusivity. This measure is a composite of internet availability, affordability, availability of local content and readiness to embrace new digital technologies.[4]

Exhibit 7: Internet inclusivity

Internet Inclusivity Index (100 = most inclusive)[1,4], 2021

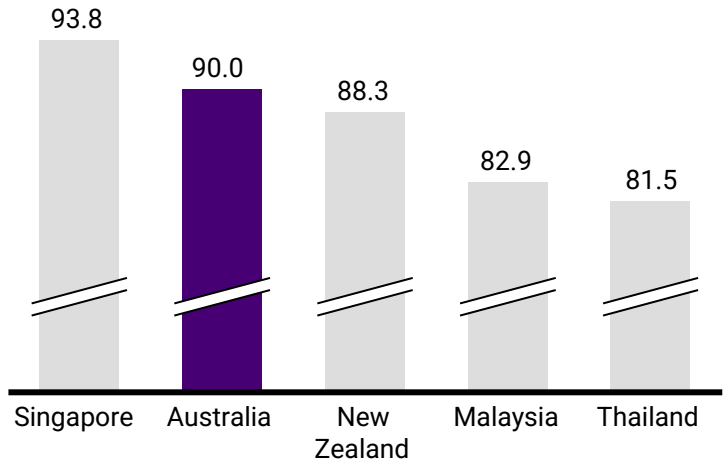


Regional financial leadership

Australia is a regional leader in finance, with both Sydney and Melbourne in the top 3 cities in South-East Asia, and Sydney ranking 10th in the world in investment management.[3]

Exhibit 8: Competitiveness as a financial centre

Global Financial Centre Index (100 = most competitive)[1,2,3], 2021 (top 5 countries in South-East Asia)

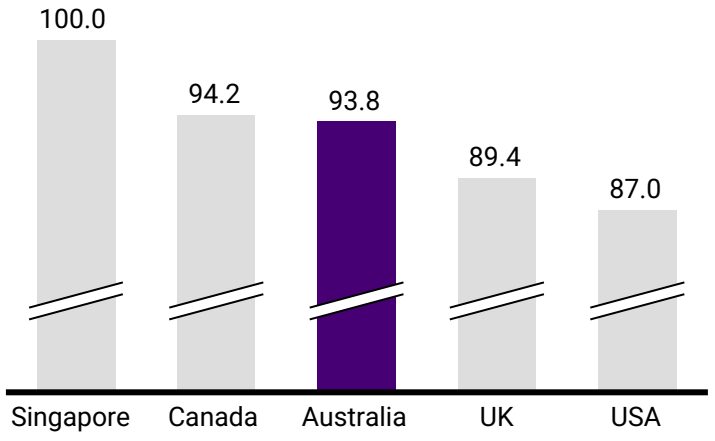


Effective institutions

Australia ranks 14th in the world in the World Bank's Government Effectiveness Index, which measures confidence in the quality of public services, the civil service and its independence from political pressures, policy formulation and implementation, and the credibility of the government's commitment to such policies.[5]

Exhibit 9: Government effectiveness

Government Effectiveness Index (100 = highest quality)[1,5], 2020



Notes: 1. Reported values are scaled such that the highest value is 100. 2. Reported national ratings reflect the rating of the highest rated city in that country (e.g. Australia's rating reflects the rating of Sydney). The chart shows the top 5 countries in South-East Asia (defined as ASEAN plus Australia and New Zealand) according to the Global Financial Centre Index. This means that Australia is ranked 2nd in South-East Asia. Sources: 3. Long Finance Global Financial Centre Index (2021), 4. The Economist (2021), 5. World Bank (accessed 2022).

Australia has more RegTech firms per capita than most of its peers, which will support sustainable growth in Australia's DA ecosystem

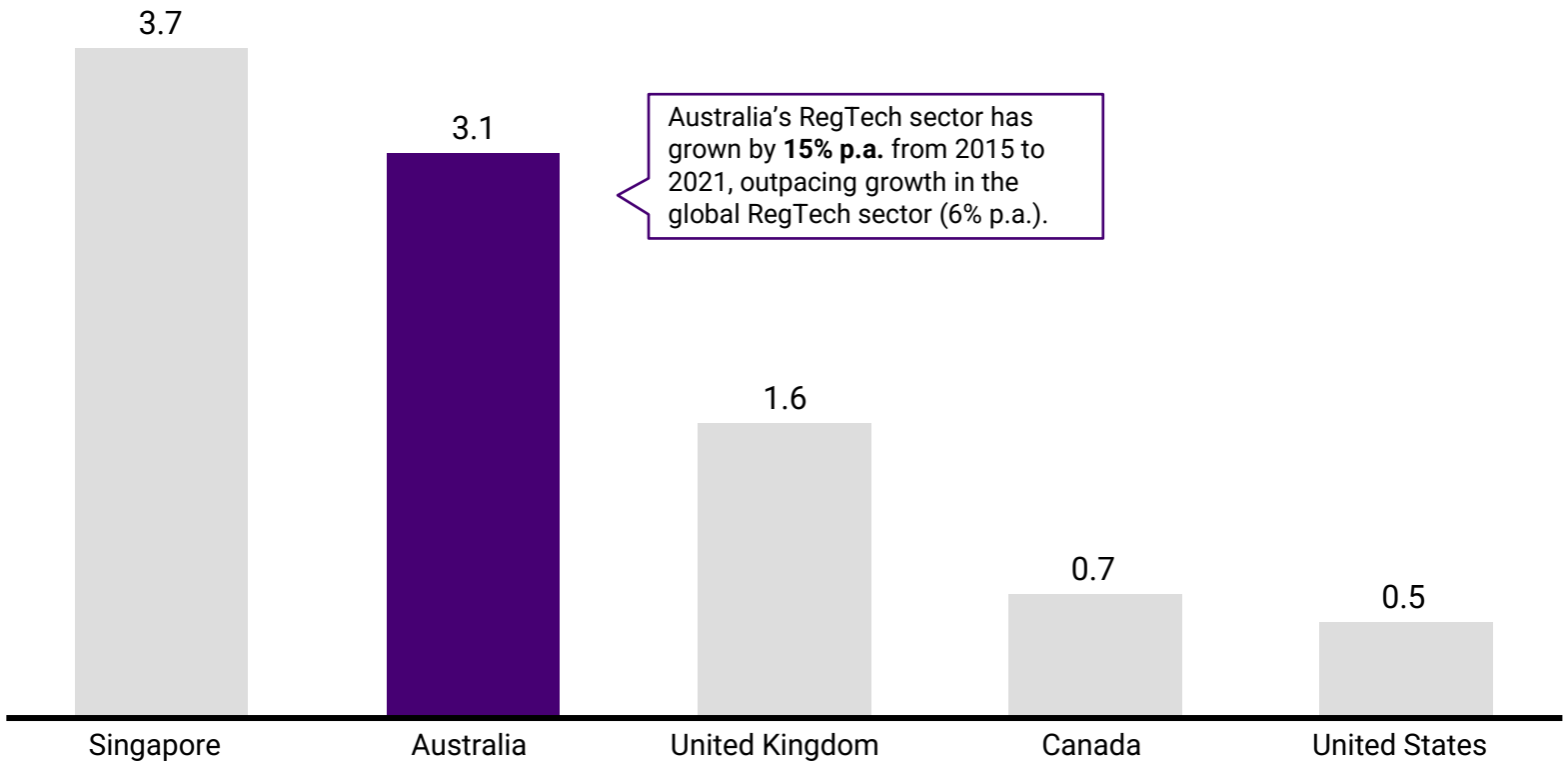
A strong domestic RegTech sector can enable Australia's global leadership in DA. RegTech is the use of technology to reduce the cost and improve the efficiency of administration and compliance. It can support growth in the DA sector by allowing businesses to reallocate their resources from compliance (which costs SMEs about $10,000 per year) to innovation and product development.RegTech can additionally provide consumers and investors with confidence in the emerging DA sector and can help manage risks including money laundering and terrorism financing.[2]

Australia is a global leader in RegTech, headquartering more RegTechs per capita than the US, Canada and the UK.[1] This growth was catalysed by the establishment in 2017 of RegTech Association, which promotes collaboration between industry and regulators in Australia and overseas.[3]

Singapore is currently the global RegTech leader, headquartering 3.7 RegTechs for every million people. Singapore's RegTech sector is supported by a cross-border open RegTech marketplace which was established by the Monetary Authority of Singapore in collaboration with regional partners.[4]

Exhibit 10: Regulatory technology (RegTech) firms headquartered per million people

Number of RegTechs headquartered per million population by country, 2020[1]



Sources: 1. BCG (2020), World Bank (accessed 2022), Accenture analysis. 2. Productivity Commission (2020), Australian Chamber of Commerce (2016). 3. RegTech Association (2021). 4. Monetary Authority of Singapore (2021)

Australia has strong data storage capacity, providing the necessary infrastructure for DA businesses

Exhibit 11: Number of data centres homed in select jurisdictions

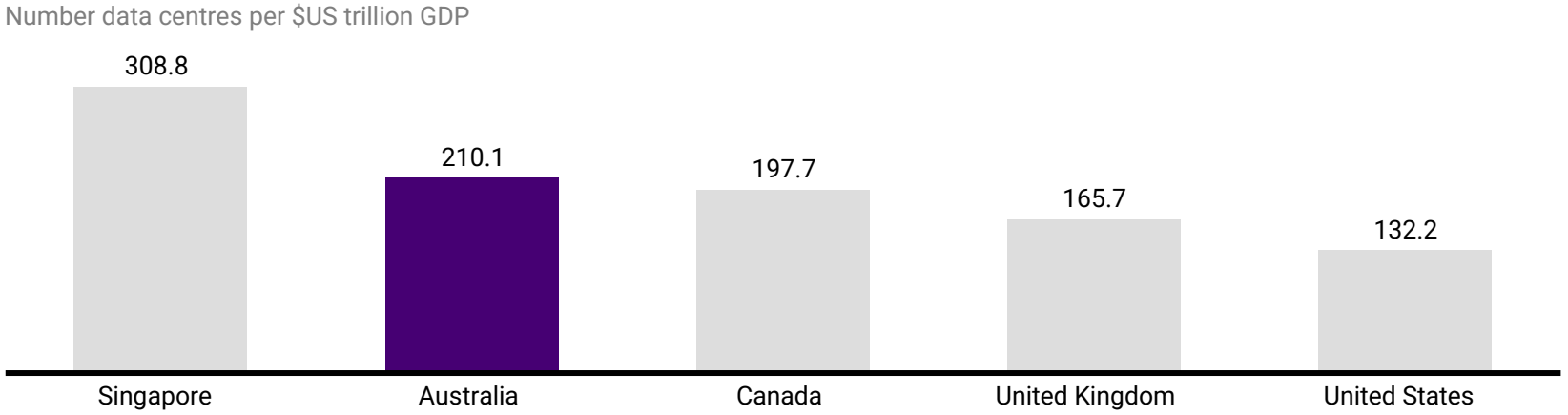
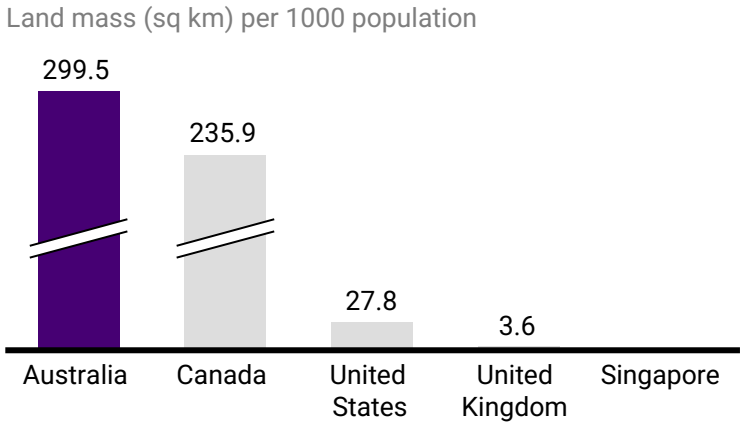
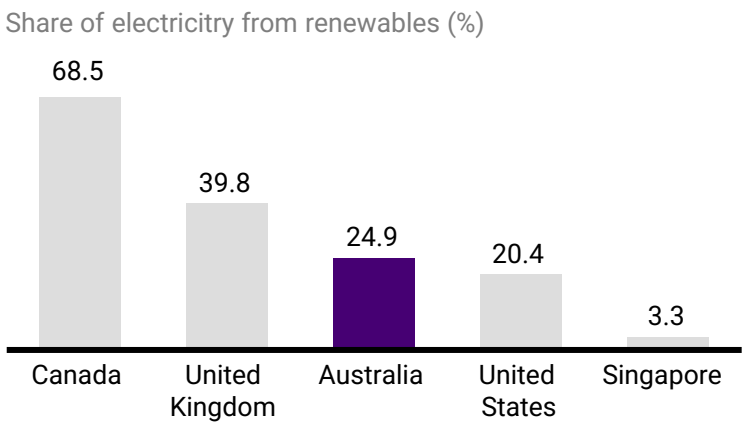


Exhibit 12: Opportunities for growth in data centres in Australia





Australia already houses a significant number of data centres. Australia is currently home to 279 data centres with key players including Amazon Web Services, Microsoft Azure and Google Cloud. On a per GDP basis, Australia ranks 2nd among peer nations (Singapore, Canada, UK and the US) and 3rd globally.

Australia is well-positioned to continue capturing an increasing share of the market. The two key constraints on the data sector industry are space and access to renewables, both of which (particularly space) Australia has in abundance. Australia's regulatory conditions (including intellectual property protection), international connectivity, power grid quality and business conditions all place Australia in a good position to grow its data centre capacity.

Regionally, Australia is a high performer. Several peers are facing challenges in further growing their data centre capacity, largely driven to geographical space constraints. In 2019, Singapore placed a moratorium on new data centres due to limitations in land area and access to renewables.

A strong data storage ecosystem, powered by renewables will support the DA ecosystem. Having data stored in proximity to your business is important, primarily due to latency issues. Having a thriving data centre sector in Australia will encourage investment in the domestic DA (and broader tech) sectors.

Source: Cloudscene, World Bank, Our World in Data, Accenture analysis

However, skills shortages pose a challenge, with DA jobs taking 25% longer to fill than other jobs, while year on year growth in jobs is over 100%

Exhibit 13: Time taken to fill DA jobs in Australia[1]

Share of job ads listed online, by time they have been listed (%)

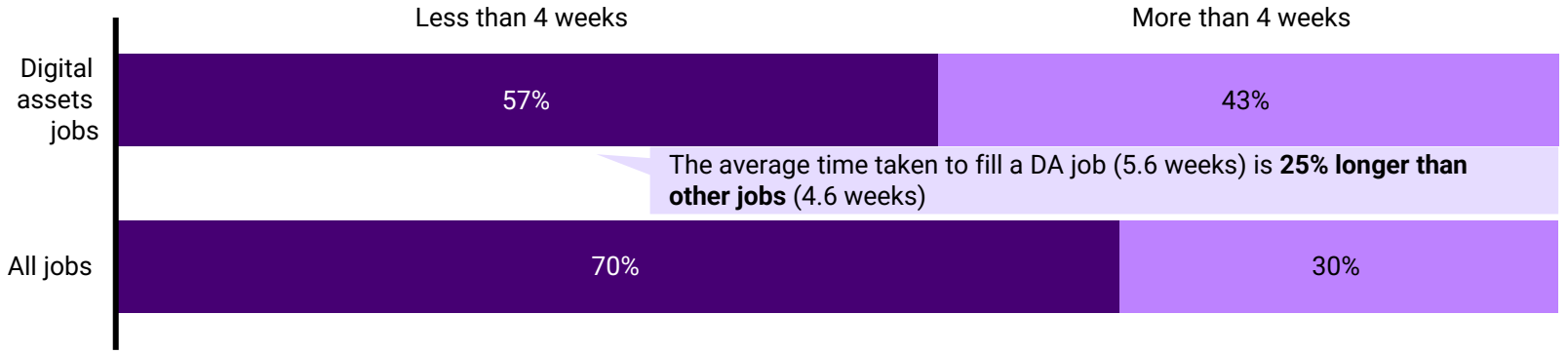
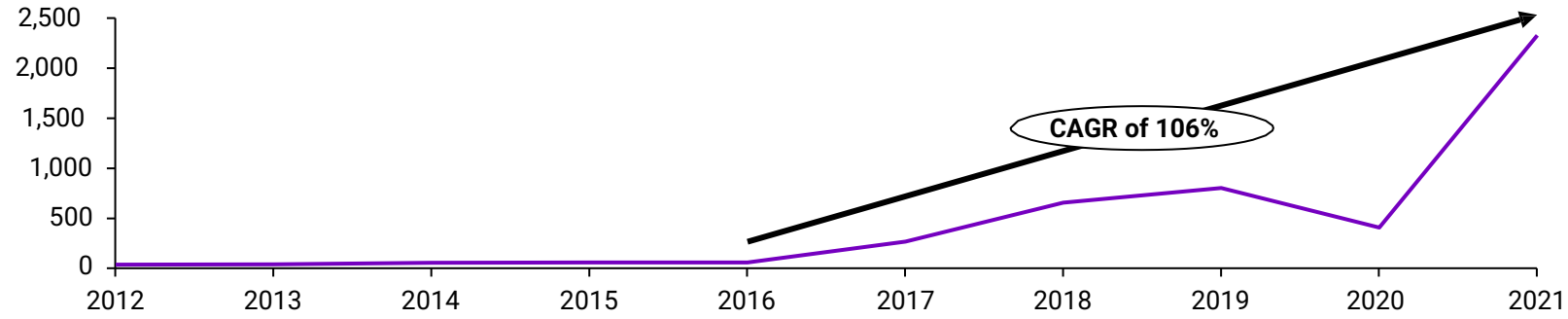


Exhibit 14: Number of digital asset job vacancies advertised in Australia by year[5]

Number of job ads listed relating to DA, annual



Demand for DA-related skills (such as artificial intelligence and software engineering) has increased significantly, with the number of DA-related job postings increasing by over 900% from 2016 to 2021.[2]

When compared with other job advertisements, DA ads take longer to fill, with 30% remaining online for over six weeks compared to just 22% of other ads.

The supply of skilled labour has been unable to meet this demand, with 71% of managers citing a shortage in talent and gaps in candidate skillsets as top challenges when recruiting digital asset talent.[3]

Industry experts suggest a skilled workforce to be one of the biggest challenges facing the sector, with Australian companies already paying significantly inflated wages to attract and retain talent.

Australia is ranked 23rd in the world on digital skills in the population, below Singapore, USA and Canada.[4]

Notes: See appendix 1 for keywords to determine scope for job ads. Sources: 1. Indeed (accessed 2022), Accenture analysis 2. CSIRO Data61 (2019), 3. Michael Page (2020) 4. World Economic Forum (2020), Wiley (2021). 5 Burning Glass Labour Insights, Accenture analysis.

Innovation in Australia is falling behind peers, with limited activity in DA patents and relatively fewer start-ups in the sector

The technology in the DA space is rapidly evolving, and to be successful, Australia will need to be at the forefront of innovation.

Australia has kept pace with most peers in patents, but lags its peers in start-ups. Over the last three years, Australia had more DA patents per person than Canada and the UK, but fewer DA start-ups per capita than its peers.

However, Australia can look to Singapore as a leader in digital asset patents and start-ups. Singapore's high rate of digital asset start-ups per capita is supported by a strong tech ecosystem which includes:[3]

- a **regulatory sandbox** to facilitate business experimentation with innovative fintech solutions, which was established a year before Australia's regulatory sandbox
- several **DLT accelerator programs,** including Tribe Accelerator and LongHash

Exhibit 15: Patent families relating to DA technology in 2018 per US $tr GDP

No. of patent families relating to DA technology by applicant origin in 2018, per US $tr GDP[1]

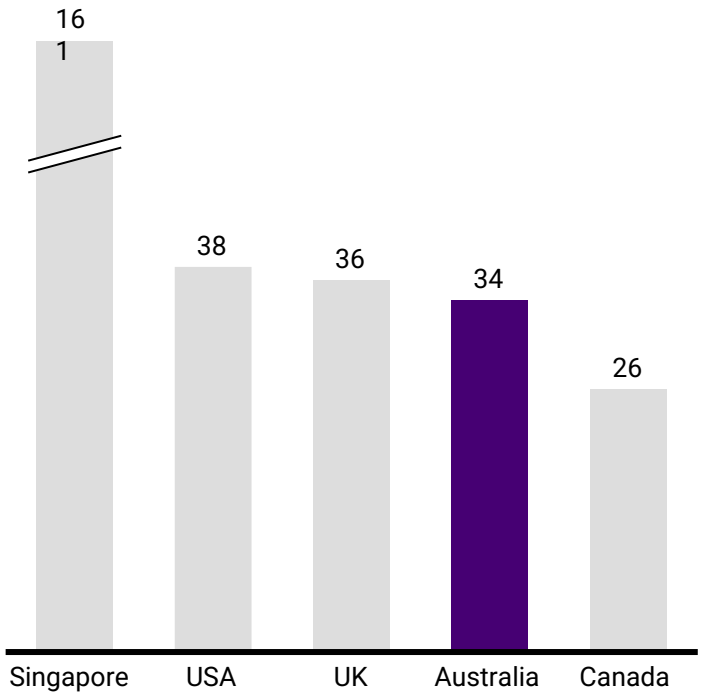
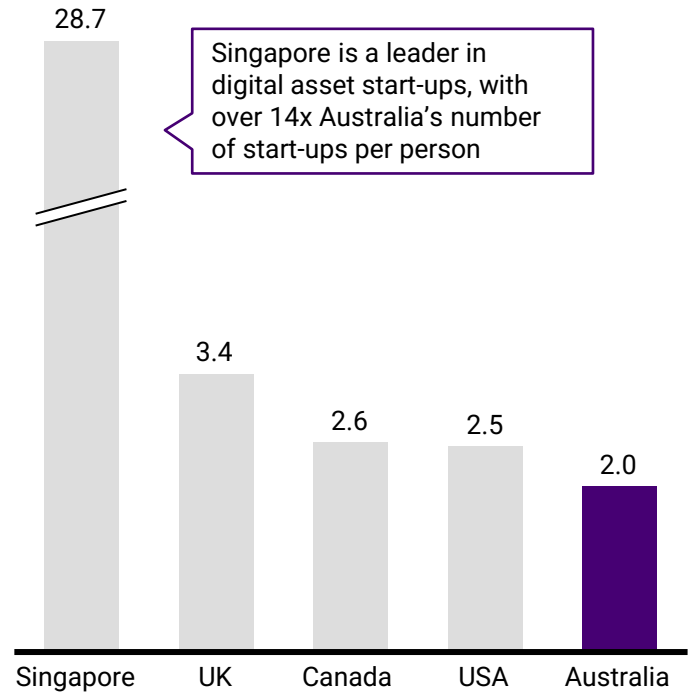


Exhibit 16: New digital asset start-ups from 2019 to 2021 per million people

Number of start-ups by headquarter location from 2019 to 2021, per million population[1]



Notes: 1. Patent families refers to a collection of patent applications covering essentially the same technical content. Figure for Singapore is an estimate based on ACS and IP Australia, and Accenture Centre for Data and Insights data. Source: 1. ACS and IP Australia (2018), World Bank (accessed 2022), Accenture Centre for Data and Insights, Accenture Analysis, 3. Infocomm Media Development Authority and Monetary Authority of Singapore (2020)

Investment in the Australian sector lags peers, with per capita investment being up to 72x greater in leading jurisdictions

Exhibit 17: Investment in digital asset companies

A$ invested per A$10,000 GDP, average from 2019 to 2021[1]

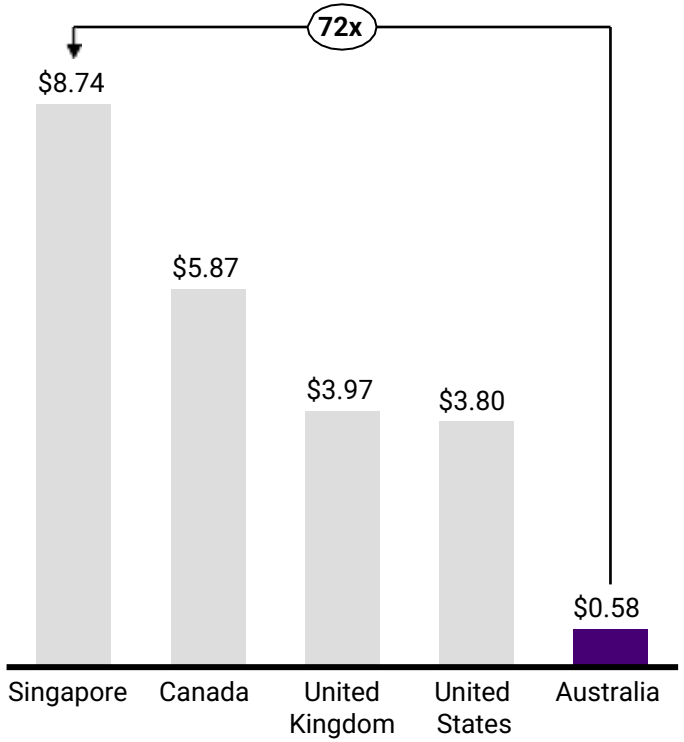
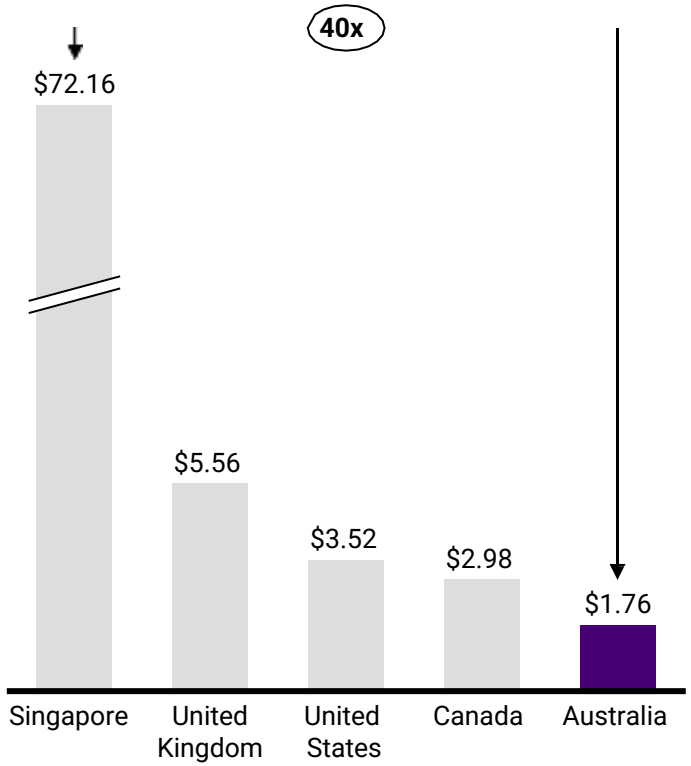


Exhibit 18: Amount raised through Initial Coin Offerings (ICOs)

A$ raised up to end of 2021 per A$10,000 GDP[2]



Australia has seen relatively low investment in digital asset companies, with only 32 identified investments made between 2019 and 2021, compared to over 150 in Singapore and over 1,000 in the United States over the same period. Investment in the Australian sector is also low on a per start-up basis, with Australian DA start-ups receiving up to 85% less investment per year than in leading jurisdictions.

Australian businesses have also raised little through ICOs compared to its peers. While Singapore had over 500 ICOs by the end of 2019, Australia had fewer than 120.[2]

The low level of investment in the Australian DA sector may reflect a lack of certainty as to how the existing regulatory regime may apply to DA businesses and ICOs. For example, some businesses have cited uncertainty in the tax treatment of ICOs as a barrier to investment in the sector.[3] Furthermore, in 2019, the Australian Treasury noted that the ICO industry had gained a 'wild west' reputation due to the failure of a number of ICOs in Australia, diminishing the reputation of the sector.[4]

Sources: 1. Crunchbase (accessed 2022), World Bank (accessed 2022), Department of Finance standard parameters (2021),Accenture analysis. 2. ICOBench (2021), Roosenboom, van der Kolk and de Jong (2020), World Bank (accessed 2022), Accenture analysis. 3. CPA Australia (2019), 4. Australian Treasury (2019). Notes: 1. See appendix 1 for keywords to identify digital asset companies. Crunchbase's public data comes from multiple channels, including data partners, publicly available sources and verified contributors. Missing values of identified fundraising events are imputed. 2. GDP figure for 2020 used in the calculation.

04

A clear principles-based regulatory approach will unlock the benefits of the digital assets sector

For decades, regulators have supported new payment technologies, unlocking new waves of benefits

Exhibit 19: Evolution of payment technologies

Payment technology	Credit cards	Contactless payments	Buy-now pay-later (BNPL)	New Payments Platform (NPP)	DA
Year introduced	1970s	2000s	Early 2010s	Late 2010s	Next wave of innovation
Key benefits	Retail payments could be made more conveniently and securely than cash[1]	Transactions became 40% faster than traditional payment cards[2]	Fraud risk reduced for merchants, with lower average consumer fees than credit cards[3]	Facilitated 24/7 real-time retail transfers without the need to enter BSBs and account numbers[4]	*To facilitate the growth of DA, **policymakers can draw upon decades of policy experience** in developing regulatory environments which unlock the benefits of new payments technologies.*
Regulatory response to unlock benefits	**Card issuers were predominately self-regulated** until the early 2000s, when the RBA introduced standards to improve competition by requiring that issuers remove restrictions on merchant surcharges.[5]	The **RBA encouraged contactless card providers to issue dual-network cards which allow merchants to route payments through the lowest cost network**. As a result, most payment providers have introduced 'least-cost routing' on their contactless cards.[6]	**In collaboration with regulators and consumer groups, the BNPL sector developed a Code of Practice, which is administered by AFIA**. This Code aims to strengthen consumer protection, while maintaining flexibility for market innovation.[7]	To coordinate industry efforts to develop the NPP between 13 financial institutions, **the RBA set four objectives for the NPP** (e.g. to allow real-time retail payments), while allowing the industry to determine the best ways to achieve these objectives.[4]	

Notes: Sources: 1. RBA (2001). 2. RBA (2014). 3. Bain & Company (2021). 4. RBA (2019). 5. RBA (2021), RBA (2015). 6. RBA (2021, 2020). 7. Australian Finance Industry Association (2021), Senate Economics References Committee (2019).

Since 1995, new payment technologies have reduced payment costs by 35% and DA technology could help further reduce costs by up to 80% by 2050

Exhibit 20: Composition of retail payments in Australia[1]

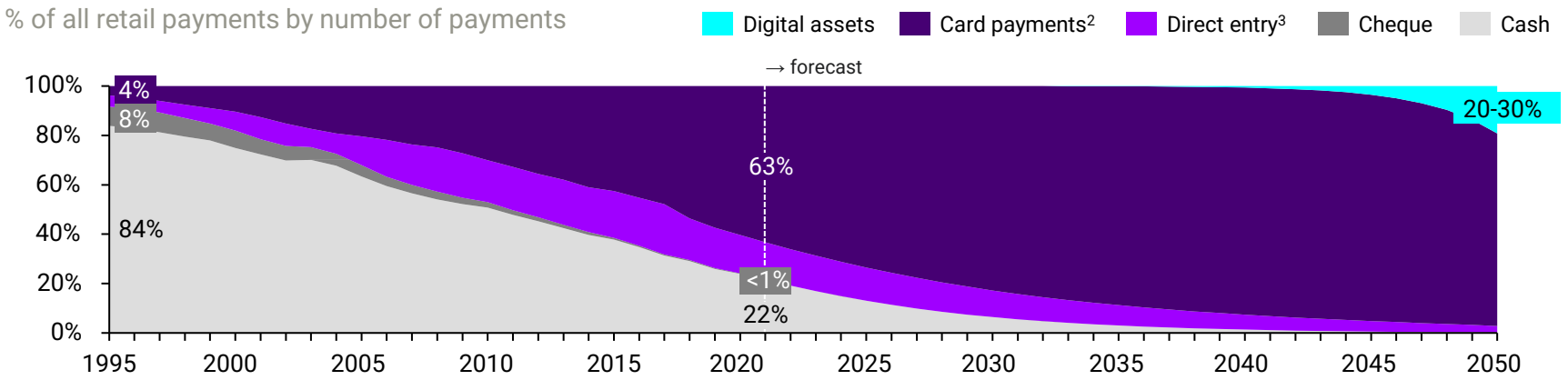
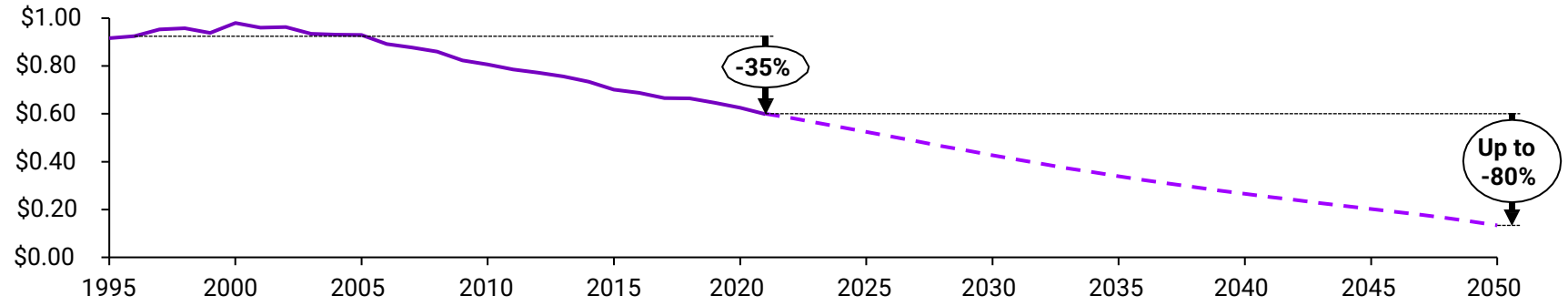


Exhibit 21: Average resource cost per retail transaction[1]



Notes: 1. Resource costs refer to the total economic costs incurred by merchants, financial institutions and the public sector in facilitating a retail payment, but excluding consumer costs (e.g. transaction time). Cost estimates are for an average-sized transaction, weighted by the type of payment instrument used. Estimates assume that the costs of card payments, direct entry, cheque and cash change at the same rate as the change between the 2006 and 2014 RBA surveys (see Stewart et al, Schwartz et al). Forecasts assume that the rate of change in payment types from 1995 to 2021 continue to 2050, and that consumers substitute from card payments and direct entry to digital asset payments at the same rate as consumers substituted from cash and cheque to card payments in the first 30 years after their introduction. 2. Card payments include Eftpos, debit card, credit card and charge card payments of fiat currency. 3. Direct entry includes direct credit, direct debit and BPAY payments of fiat currency. Sources: 1. RBA Payments System Board Annual Report (1998-2021), RBA Visa Debit Discussion Paper (2001), Stewart et al (2014), Schwartz et al (2008), Accenture analysis. 4. Stewart et al (2014), Accenture analysis. 5. Expert interviews, Bratspies (2018). 6. Expert interviews.

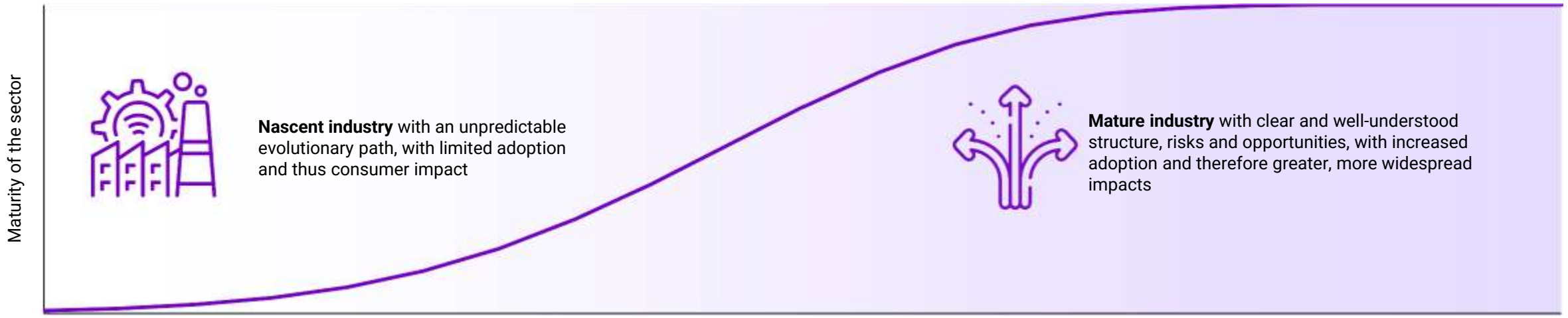
The cost of transactions has declined with the advent of new payment technologies over the past few decades. The use of cheques and cash has declined over the last 16 years while the number of card transactions per capita per year has increased 17-fold. This has seen a 35% reduction in retail transaction costs. The RBA attributes the reduction in retail payment costs to the transition to more efficient digital technologies.[4]

With appropriate policy settings, digital asset payment technologies could contribute to a decline in payment costs by a further 80% by 2050, with experts suggesting that the resource cost of digital asset payments could approach zero in the next few decades.[5] Innovations such as the Lightning Network are already reducing the cost of cryptocurrency transactions, facilitating micropayments which previously have not been viable due to the previously relatively high transaction costs.

The potential penetration of DA technology is very large, though still uncertain. While DA technology may contribute over 20% of retail payments by 2050, some experts have predicted that they could contribute up to 50% of payments if stablecoins are the dominant DA technology, or up to 100% if a retail CBDC is widely used, meaning an even greater impact on payment costs.[6]

As the DA sector matures, regulators should adopt a more considered and proactive approach to enable innovation while reducing instability and consumer risk

Exhibit 22: Evolution of technology sector maturity and regulatory responses



Sources: Based on World Economic Forum (2021), World Bank (2020),

A principles-based approach will support the DA sector and allow it to continue innovating as it evolves

Exhibit 23: Future options for DA regulation[1]

Less prescriptive

More prescriptive

	Description	Suitability for current DA sector
Principles-based	**Sets an overarching framework to guide policy and regulatory development** across the entire sector ecosystem. *In 2021, Hester Peirce, Commissioner of the U.S. Securities and Exchange Commission (SEC), raised six fundamental considerations regarding the SEC's approach to regulation of DA technology which could form the basis of a principles-based approach. This included the need to protect consumers without denying investors opportunity.[2]*	▪ **Most suitable for the DA sector at its current level of maturity** ▪ Appropriate for rapidly-evolving sectors that have unpredictable growth trajectories, but have developed to a stage where they have clear regulatory needs.
Rules-based	**Defines the processes or actions** that ecosystem players must perform or refrain from to be compliant. *Given the nascent status of the sector across all jurisdictions there are no clear examples of rules-based approaches to DA regulation.*	▪ **Not currently suitable for the DA sector** ▪ More appropriate for more stable and established sectors where the regulatory needs of the sector are well-defined and relatively static.
Restrictive	**Restricts or proscribes** the operation and development of the sector. *China adopted a restrictive approach when it banned domestic financial institutions from providing services involving cryptocurrencies, including payments, registrations and trading services.[3]*	▪ **Unsuitable for the DA sector if Australia seeks to grow its DA sector**

Sources: 1. Based on Australian Law Reform Commission (2008), Black, Hopper and Band (2007), World Economic Forum (2021). 2. US Securities and Exchange Commission, Speech by Commissioner Hester Peirce (2021) with six considerations which can be summarised as; (1) legal clarity, (2) interpretation and ambiguities, (3) risk of regulation prohibiting private sector innovation and (4) restricting participation by consumers, (5) the paradox of regulation and decentralised protocols, and (6) providing a regulatory regime that industry participants are able to comply with. 3. Reuters (2021).

The Government can support a responsible and thriving DA sector by achieving core objectives through guiding regulatory principles

Exhibit 24: Core objectives and guiding principles for regulatory development

The Government should pursue these core objectives…

The objectives of regulation are to:

- Support Australia to become a global leader in responsible DA
- Unlock economy-wide benefits of DA technology
- Promote financial and digital inclusion
- Protect consumers and businesses and promote financial stability

…by applying these guiding principles

1. Outcomes-based regulation
Regulations should be designed to support desired outcomes, rather than prescribing processes and inputs.

2. Agile, iterative and collaborative design
Policymaking should be agile and responsive to industry developments by engaging a range of ecosystem players including businesses and consumers.

3. Global market-focused
The regulatory approach should allow Australian DA businesses to compete effectively in international markets.

4. Risk-calibrated regulation
Regulatory burdens should be proportionate to the level of risk associated with activity.

Note: The 4 core principles were developed from a review of successful principle-based frameworks and refined in a workshop with Australia's major DA firms. Principle-based frameworks that were reviewed include the Monetary Authority of Singapore fintech principles (2018), UK Tech Nation Fintech Pledge (2021), NSW Productivity Commission principles for regulating emerging technologies (2021), Department of Industry, Science, Energy and Resources AI Ethics Framework (2019), US Presidential Executive Order on DA (2022), Australian Law Reform Commission principles for information privacy (2008). See appendix 3 – 7 for further detail on regulatory principles.

The Biden administration approach to DA regulation

The White House has put DA regulation and policy on its agenda, issuing an Executive Order on 9 March 2022

The Executive Order outlines six DA technology policy objectives:

1. To **protect consumers, investors, and businesses** from risks stemming from data security, custodial arrangements of assets, investment risks and consumer privacy.
2. To **protect financial stability** and mitigate systemic risk through application of regulatory and supervisory standards to digital asset issuers, exchanges and trading platforms, and intermediaries.
3. To **mitigate risk of illicit activity** posed by misuse of DA technology including through money laundering, cybercrime and ransomware, narcotics and human trafficking, and terrorism and proliferation financing.
4. To **reinforce US leadership** in the global financial system and in technological and economic competitiveness, through the responsible development of payment innovations and DA.
5. To **promote access to safe and affordable financial services**, with many Americans currently being underserved by existing banking systems and paying high costs for cross-border money transfers.
6. To **support responsible development and use of DA technology** by ensuring digital asset technologies and the digital payments ecosystem are developed, designed, and implemented in a responsible manner.

Sources: Whitehouse (accessed 2022)

06

A sector development strategy will support strong and sustainable growth

To capitalise on the DA opportunity, it is critical the Government supports the sector in its roles as a regulator, promoter, investor and catalyst

Exhibit 25: Four roles for Government in developing the DA sector

Government as a regulator

Futureproof the sector through a structured approach to regulation by developing…

- **Core objectives** for regulation
- **Guiding principles** for regulatory development

Government as a promoter

Position Australia to be a leader in responsible DA by promoting our strengths in…

- **Effective institutions**
- **Digital inclusivity**
- **Regional financial leadership**
- **Strong RegTech ecosystem**

Government as an investor

Build core capabilities in the sector by …

- Growing a **skilled workforce**
- Developing enabling **infrastructure** for the sector

Government as a catalyst

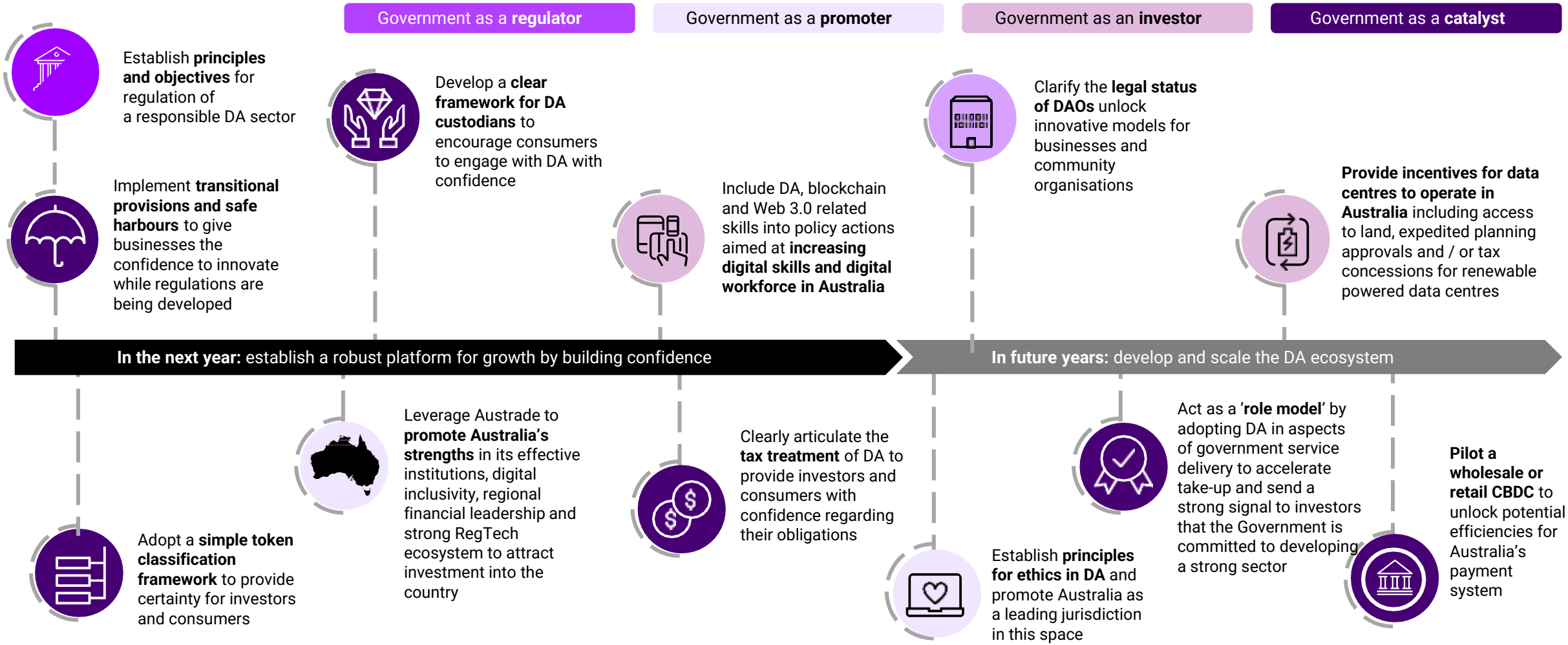
Kickstart growth in the sector by…

- Accelerating **innovation**
- Facilitating **investment** in the sector

Source: Adapted from UK Government Policy Lab (2020).

As a regulator, promoter, investor and catalyst, Government can position Australia as a global leader in responsible and trusted DA

Exhibit 26: DA sector development strategy



Notes: See appendix 7 for summary of initiatives underway in Australia.

As a catalyst, the government should implement three policy actions to accelerate responsible DA innovation

Government action	Description	How this has been implemented overseas
Adopt a simple token classification framework to provide certainty for investors and consumers	Australia should prioritise its work to adopt a simple token classification framework. The framework should **distinguish between tokens based on the economic relationships** that they underpin rather than their technical characteristics. The classification framework should be drafted generally to ensure it can readily accommodate novel DA technologies or activities.	The **UK** has developed a simple token classification framework to align different types of tokens with existing regulatory regimes. Based on their functionality, digital tokens are treated as either electronic money, securities or unregulated tokens.[1]
Develop a clear framework for DA custodians to encourage consumers to engage with DA with confidence	Australia should prioritise its work to develop a framework which **clarifies the regulatory landscape for custodians**, while providing **adequate consumer protections** including accessible recourse options for customers.	**Wyoming (USA)** has introduced a clear regulatory framework to govern the relationship between customers and providers of custodian services. It clarifies that customers can assert ownership rights over DA which are held with custodians and requires custodians to maintain minimum IT and liquidity standards.[2]
Pilot a wholesale or retail CBDC to unlock potential efficiencies for Australia's payment system	Australia should build upon the Project Atom proof-of-concept for a wholesale CBDC by piloting a retail or wholesale CBDC. This could allow Australia to realise the **substantial efficiency and cost-saving potential** of DA technology in payment applications.	The Central Bank of **Sweden** launched a pilot for the e-krona (a retail CBDC). This pilot was catalysed by the rapid transition to digital payments in Sweden, combined with the Bank's objective of maintaining stability in Sweden's payment system.[3]

Sources: 1. HM Treasury (2021), FCA (2019). 2. Scharfman (2022), Select Committee on Australia as a Technology and Financial Centre (2021), Wyoming Bill HB0019 (2018), WY Stat § 34-29-104 (2021), Forbes (2019a 2019b). 3. Sverige Riksbank (2022).

A simple approach to token classification

The UK Financial Conduct Authority (FCA) has developed a simple taxonomy which classifies tokens based on their economic function.

The FCA's taxonomy provides DA businesses and investors with the clarity needed to function efficiently. In 2018, the Crypto Asset Task Force, led by the Bank of England and the FCA, was formed to develop appropriate policies for the DA sector. While the Taskforce noted that there are over 2,000 types of DA in existence, it proposed a simple framework which was subsequently refined by the FCA after consultation with ecosystem players. It contains only three classes of tokens, each with a distinct legal status:

- *Exchange tokens*, which are intended to be used as a means of exchange
- *Utility tokens*, which provides holders with access to a current or future product or service
- *Security tokens*, which are designed to provide rights analogous to traditional investment products.

The UK's token classification framework is designed to accommodate the evolving ways that DA are used. The FCA's framework allows tokens to move between categories in recognition of the rapidly changing ways in which tokens may be used over time. The Government intends that new activities can be brought into the framework in an agile way, and will continue to monitor suitability of this taxonomy for the DA market.

Sources: HM Treasury, FCA and Bank of England (2018), FCA (2019).

As a catalyst, the Government should undertake four key actions to attract investment to the DA sector

Government action	Description	How this has been implemented overseas
Implement transitional provisions and safe harbours to give businesses the confidence to innovate while regulations are being developed	Australia should implement transitional provisions and safe harbours **provide confidence to prospective investors** that digital asset projects will not be subject to sudden or retrospective changes in regulation.	In the **US**, senators have proposed a time-limited exemption for new tokens so that issuers can gain clarity as to how regulations apply to them. Frameworks in **Singapore**, the **UK**, **Canada** and the **EU** (proposed), contain similar safe harbour provisions.[1]
Clearly articulate the tax treatment of DA types to provide investors and consumers with confidence regarding their obligations	Australia should urgently provide clear and more practical guidance which can **help consumers and investors gain confidence in their understanding of their tax obligations**. Tax regulations should also be updated so that they better distinguish between distinct types of economic relationships that are underpinned by DA.	The Inland Revenue Authority of **Singapore's** 'e-Tax Guide' provides accessible guidance to businesses on the tax treatment of digital tokens and ICOs. This guidance broadly aligns with tax provisions relating to traditional financial assets, ensuring that they are well- understood by businesses.[2]
Clarify the legal status of DAOs to unlock innovative models for businesses and community organisations	By clarifying the legal status of DAOs, including the liability implications for its members, Australia could **unlock the potential of DAOs** to provide a decentralised, scalable and efficient organisational structure for businesses, non-profits and community groups.	In most jurisdictions[3] a DAO cannot itself enter into contracts and its members have unlimited liability. Distinctly, **Vermont (USA)** provides DAOs with legal personality and affords limited liability for members, subject to stipulated requirements.[4]
Act as a 'role model' by adopting DA in aspects of government service delivery to accelerate take-up and send a positive signal to investors that the Government is committed to developing a strong sector	The Government can instill confidence in consumers and investors by being an early-adopter of DA. This **sends a positive signal to investors** that Australian policymakers are committed to developing a strong digital asset ecosystem, attracting investment into the sector.	In 2022, **Colorado (USA)** announced that it would accept digital asset payments for state taxes, signaling the Government's intention to develop Colorado into 'a center of crypto and blockchain innovation'.[5] Similarly, authorities in **Zug (Switzerland)** have started accepting DA for tax payments.[6]

Notes: 3. Including most US states, the UK and Australia. Sources: 1. SEC (2011), Blockchain Australia (2021). Monetary Authority of Singapore (2022), Proposal for EU Regulation on Markets in Crypto-assets, and amending Directive (EU) 2019/1937, Digital Law Association (2021). 2. IRAS (2020). 3. JDSupra (2022), Finextra (2021), Select Committee on Australia as a Technology and Financial Centre (2021). 4. 11 V.S.A. § 4173. 5. The Guardian (2022). 6. Kanton Zug (2020).

The Singaporean approach to becoming a global leader

Singapore has supported strong growth in its DA sector by streamlining regulation and accelerating innovation

Singapore is a global leader in DA, with significant business activity in the sector. In recent years, Singapore has produced more DA patents, headquartered more DA start-ups and attracted more investment in DA businesses than its international peers. Growth in Singapore's DA sector is accelerating, with a tenfold increase in investment in Singaporean DA businesses between 2020 and 2021.

The Singaporean Government has developed clear and DA-focused regulatory guidance to provide ecosystem players with the confidence to innovate and invest in the sector. In 2017, the Monetary Authority of Singapore (MAS) published specific guidance on digital token offerings which enabled DA business activity by reducing capital liquidity requirements and simplifying compliance obligations for DA businesses. The Inland Revenue Authority of Singapore later introduced a simple taxonomy which classifies digital tokens as either a payment, utility or security token. This provides businesses and consumers with clarity as to the tax treatment of their digital asset holdings. In 2019, the Payment Services Act was introduced that provides a stable regulatory licensing and operating framework for digital-assets based entities.

The success of Singapore's DA sector has also been driven by a series of initiatives led by both the Government and industry to boost innovation. For example, MAS has committed S$250M to Singapore's Financial Sector Development Fund to accelerate fintech innovation and has been developing a wholesale CBDC to increase the efficiency of interbank transfers. Innovation has also been catalysed through industry events such as the Singapore Fintech Festival and Singapore Blockchain Week, which were both developed through collaborations between industry and the Singaporean Government. In addition, Singapore has led the way in utilizing DA technology through the development of the blockchain-based OpenCerts platform that enables the issuance and verification of certificates and transcripts that are secure and tamper-proof.

Sources: Monetary Authority of Singapore (2020, 2022), Simmons & Simmons (2018), Inland Revenue Authority of Singapore (2020), KPMG (2022), Bloomberg (2021), Asia Times (2020), Ripple (2021), NTU (2021).

The UK's plans to become a digital asset hub

In April 2022, the UK Government announced plans to make the UK "a global cryptoasset technology hub"

The UK Government announced in early 2022 a suite of measures to support DA firms in the UK, with a string emphasis on industry growth. The government's goal is for the UK to remain at the forefront of technology and innovation, which it hopes to achieve by supporting DA firms to be able to invest, innovate and scale up by providing them with confidence and regulatory clarity.

The headline announcement was government's plan to recognise stablecoin as a form of payment. The Government acknowledged that with appropriate regulation, stablecoins could provide a more efficient means of payment and widen consumer choice. The government announced plans to legislate to bring stablecoins within the payments regulatory scope enabling issuers and service providers can operate in the UK.

Further measures to encourage further investment in the sector were announced. Measures included;

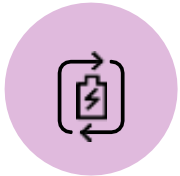
- the development of a regulatory sandbox to enable firms to experiment and innovate,
- the establishment of an engagement group to work more closely with the industry,
- a review of the tax system to support further development of the DA market including treatment of DeFi loans,
- plans to work with the Royal Mint on a Non-Fungible Token (NFT).

Sources: UK Government (2022)

As a promoter, Government should amplify Australia's potential as a leader in responsible, trusted DA…

Government action	Description
 **Leverage Austrade to promote Australia's strengths in responsible DA, such as its effective institutions, regional financial leadership, strong RegTech system, digital inclusivity and financial stability.**	Australia should **consolidate its strengths in its effective institutions, digital inclusivity, regional financial leadership and strong RegTech ecosystem**, and promote these strengths in international markets.
 **Establish principles for ethics in responsible DA and promote Australia as a leading jurisdiction in this space**	**Australia should aim to become a global leader in responsible and ethical practices in DA**, as internationally there is currently little activity in this space. This presents an opportunity to have a competitive advantage compared with peers.

… and as an investor, it should develop DA skills and infrastructure

Government action	Description
 **Include DA, blockchain and Web 3.0 related skills into policy actions aimed at increasing digital skills and digital workforce in Australia**	The Government should **engage with educators, tech businesses and researchers** to include DA as part of digital skills policy through forums like the TCA's Digital Employment Forum.
 **Provide incentives for data centres to operate in Australia including access to land, expedited planning approvals and / or tax concessions for renewable powered data centres**	Australia should **capitalise on its globally distinctive opportunity to provide data services, using our vast area and access to renewable energy,** by providing incentives for data centre companies.

Upskilling Australia

Creating a skilled workforce is critical, with innovative approaches seeing early success

Blockchain Collective emerged out of necessity. In 2017, Blockchain Collective's founders faced a challenge; they could not find skilled staff. Speaking to industry peers, it became apparent that this issue was widespread in Australia and even globally. They decided to address it head on.

Blockchain Collective developed an innovative approach to training, with a hands-on course curricula that would ensure graduates were job-ready. The qualifications; The Diploma of Applied Blockchain 10849NAT, Advanced Diploma of Applied Blockchain 10747NAT and the Diploma of Applied Blockchain Merging Machine Learning and Artificial Intelligence 10991NAT, were developed in consultation with industry to provide a robust framework that allows for agility and responsiveness to the evolution of emerging technologies, whilst meeting the rapidly changing needs of industry. Blockchain Collective's training is nationally accredited and is being offered at over a dozen RTOs nation-wide.

Blockchain Collective sees accessibility and awareness as the key components to closing the tech skills gap in Australia. Blockchain Collective is working with governments across the nation to have their courses subsidised, reducing the barrier of entry to students. Currently all three qualifications are approved for VET Student Loan funding, nationwide. At a state level, the Queensland Government is leading the way by approving the Diploma of Applied Blockchain 10849NAT for unrestricted Job Trainer funding through TAFE QLD. This allows any Queensland resident to study the qualification for only $145. There is growing demand from industry and small business for other state governments to follow suit to increase accessibility and create more awareness. Blockchain Collective is also engaging with the Digital Employment Forum to support the TCA goal of 1 million tech sector jobs by 2025.

Sources: Blockchain Collective

The DA sector could deliver important economic and social benefits

Potential growth of the DA sector by 2030

$15-20 billion

in **investment** in DA firms per year by 2030

700-1000

start-ups in the DA sector per year by 2030

$10-15 billion

in **tax revenue** from the DA sector per year by 2030

Potential benefits for consumers and businesses with widespread adoption of DA

$8-10 billion

saved per year in **retail payment resource costs**

$300 million

saved per year in **losses avoided from fraud** due to the improved security of DA transactions

$160 per person

saved by consumers per year in **international transaction fees**

80 hours per business

saved per year from **reduced tax and invoicing administration**

Notes: See appendix 1 for methodology and sources and detail on key figures.

Appendix

Appendix

Table of contents

Methodology for quantification of benefits

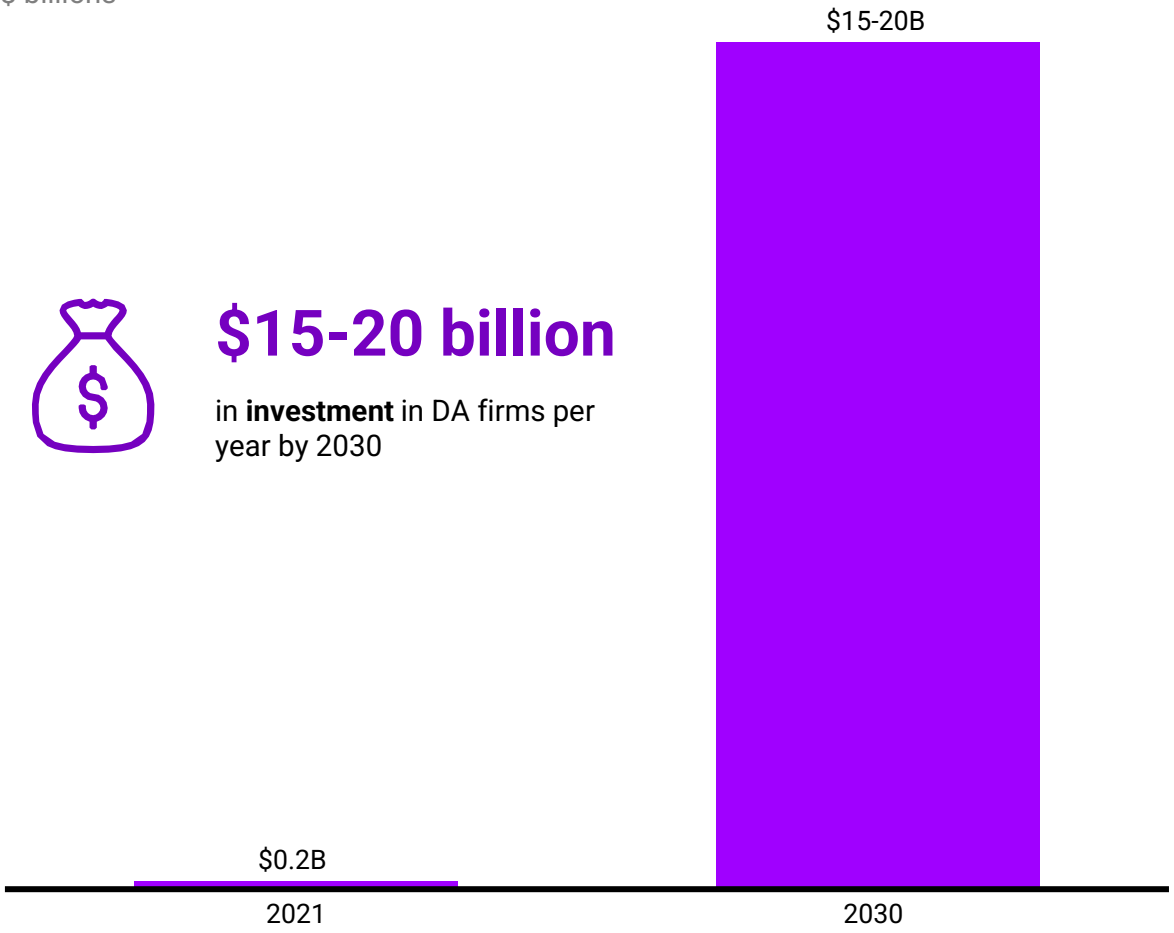
Finding	Approach and assumptions
1. $15-20 billion in investment in DA firms in 2030	The expected additional investment was estimated by calculating the average ratio between gross value add (GVA) and gross fixed capital formation (GFCF) for Information, Media and Telecommunications (IMT) and Professional, Scientific and Technical Services (PMT) in 2018-19 and multiplying this ratio by forecast economic contribution to GDP. This assumes that this ratio remains constant from 2021 to 2030.
2. 700-1000 start-ups in the DA sector in 2030	The expected number of additional startups per year was estimated using two approaches. • Approach 1: estimated startups by assuming the ratio between DA startups and DA economic contribution remains constant from 2021 to 2030. • Approach 2: estimated startups by calculating the ratio between forecast startups and GDP for peer countries (Canada, Singapore, US, UK), assuming a constant growth rate in startups and GDP and that Australia's ratio reaches the average of its peers by 2030
3. $10-15 billion in tax revenue from the DA sector in 2030	• Tax revenue from DA = company tax from DA businesses + GST + personal income tax from workers in the DA sector • Company tax is estimated by assuming that DA has the same profit before tax to GVA ratio as the average of IMT and PMT, and conservatively assuming that DA companies pay the base tax rate (26%) • GST is estimated by assuming that DA has the same GST to sales ratio as the Australian economy-wide average. • Income tax is estimated by assuming that DA has the same earnings to income tax ratio as the economy-wide average, and that DA workers have the same average wages as tech sector workers.
4. $8-10 billion saved per year in retail payment resource costs	• Annual savings = (average resource costs with widespread adoption of DA (20% uptake) – average resource costs per person in 2021) x population of Australia. This estimate is conservative given that DA uptake could reach 50-100% by 2050. • We assume that consumers make a constant number of payments per year from 2021 and 2030. The forecast composition of payments assumes that payment trends from 1995 to 2021 continue at the same rate, and that DA comprise ~20% of all transactions by 2030 (which mirrors the uptake of payment cards after a similar number of years after rollout). • We assume that trends in payment costs from 1995 to 2021 for each payment type continues at the same rate.
5. $300 million saved per year in losses avoided from fraud due to the improved security of DA transactions	• Losses avoided from fraud per year = estimated losses from fraud with widespread adoption of DA (20% uptake) – estimated losses from fraud in 2021. This estimate is conservative given that DA uptake could reach 50-100% by 2050. • This calculation uses the same assumptions for the composition of payments as were used for Finding 4. • We assume that the fraud rate for card payments remains constant and reflects historical rates to 2030 (~ 1.1%), and that the fraud rate for DA remains constant (~0.6%), assuming that half of all illicit DA payments from 2017 to 2021 were due to fraud.
6. $160 per person saved by consumers per year in international transaction fees	• Total savings per person = Total international transaction fees / population of Australia in 2030 aged 16 and over • We assume that all international transactions can be made through DA, and that these transactions have a negligible cost.
7. 180 hours per business saved per year due to reduced administrative burdens created by tax and invoicing	• Assumes that time spent on administration and compliance relating to GST is reduced by 100% due to automating GST routing at the point of sale, and that time spent relating to other taxes and invoice management is reduced by 50% due to DA efficiencies. • This estimate may be conservative as it reflects the time taken for administration and compliance for small businesses, and the time cost for the average business may be higher.

Sources by finding: 1. Crunchbase (2022), World Bank (2022), OECD (2022), Mawson (2021), ABS Input Output Tables (2021), Accenture analysis. 2. Crunchbase (2022), World Bank (2022), Mawson (2021), Accenture analysis. 3. ABS Australian Industry (2021), ABS Taxation Revenue (2021), Tech Council of Australia (2022), Australian Taxation Office (2021), Mawson (2021). 4. RBA Payments System Board Annual Report (1998-2021), RBA Visa Debit Discussion Paper (2001), Stewart et al (2014), Schwartz et al (2008), ABS Population (2021), Accenture analysis. 5. RBA Payments System Board Annual Report (1998-2021), RBA Visa Debit Discussion Paper (2001), Stewart et al (2014), Schwartz et al (2008), Chainanalysis (2022), Accenture analysis. 6. TransferWise (2017), ABS Population (2021), Accenture analysis 7. MYOB (2015), Xero (2021), Pinch (2021), Accenture analysis.

Annual investment in DA firms Australia could grow to $15 - $20 billion per year by 2030 and the number of new startups could reach 1000 annually

Appendix exhibit 1: Forecast annual investment into Australian DA firms

$ billions

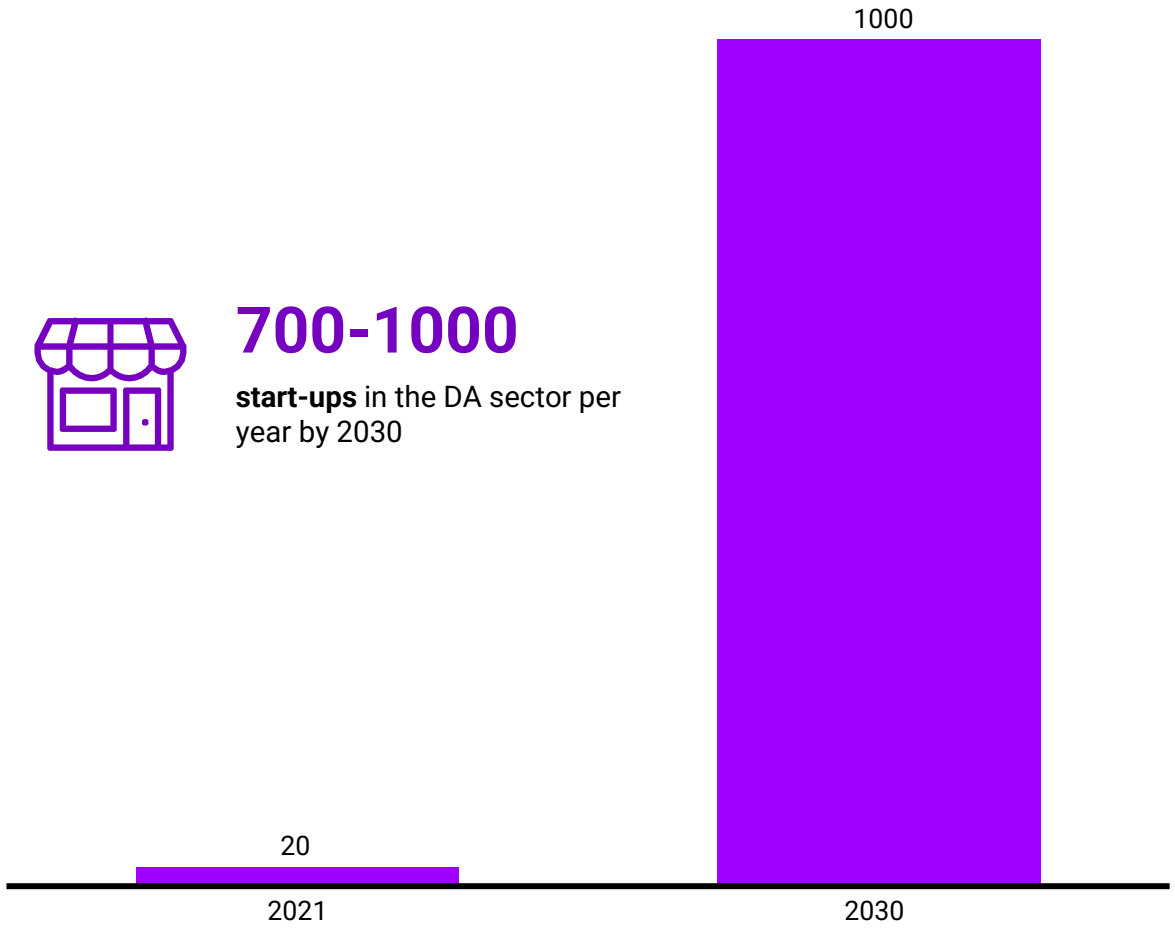


$15-20 billion

in **investment** in DA firms per year by 2030

Appendix exhibit 2b: Forecast growth in digital asset firms in Australia

Number of firms



700-1000

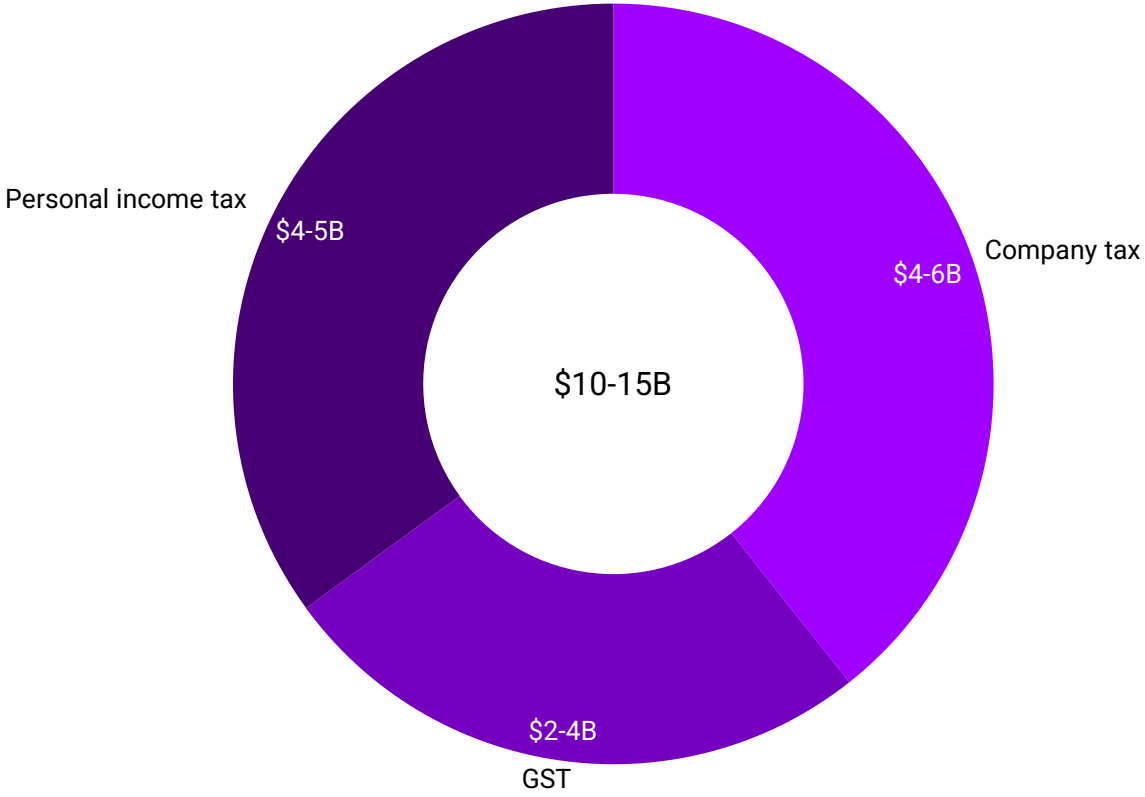
start-ups in the DA sector per year by 2030

Notes: See appendix 1 for methodology and sources.

A leading DA sector could generate an additional 10-15B in tax revenue each year

Appendix exhibit 2: Forecast additional tax revenue from the DA sector

$ billions, annual, 2030



$10-15 billion

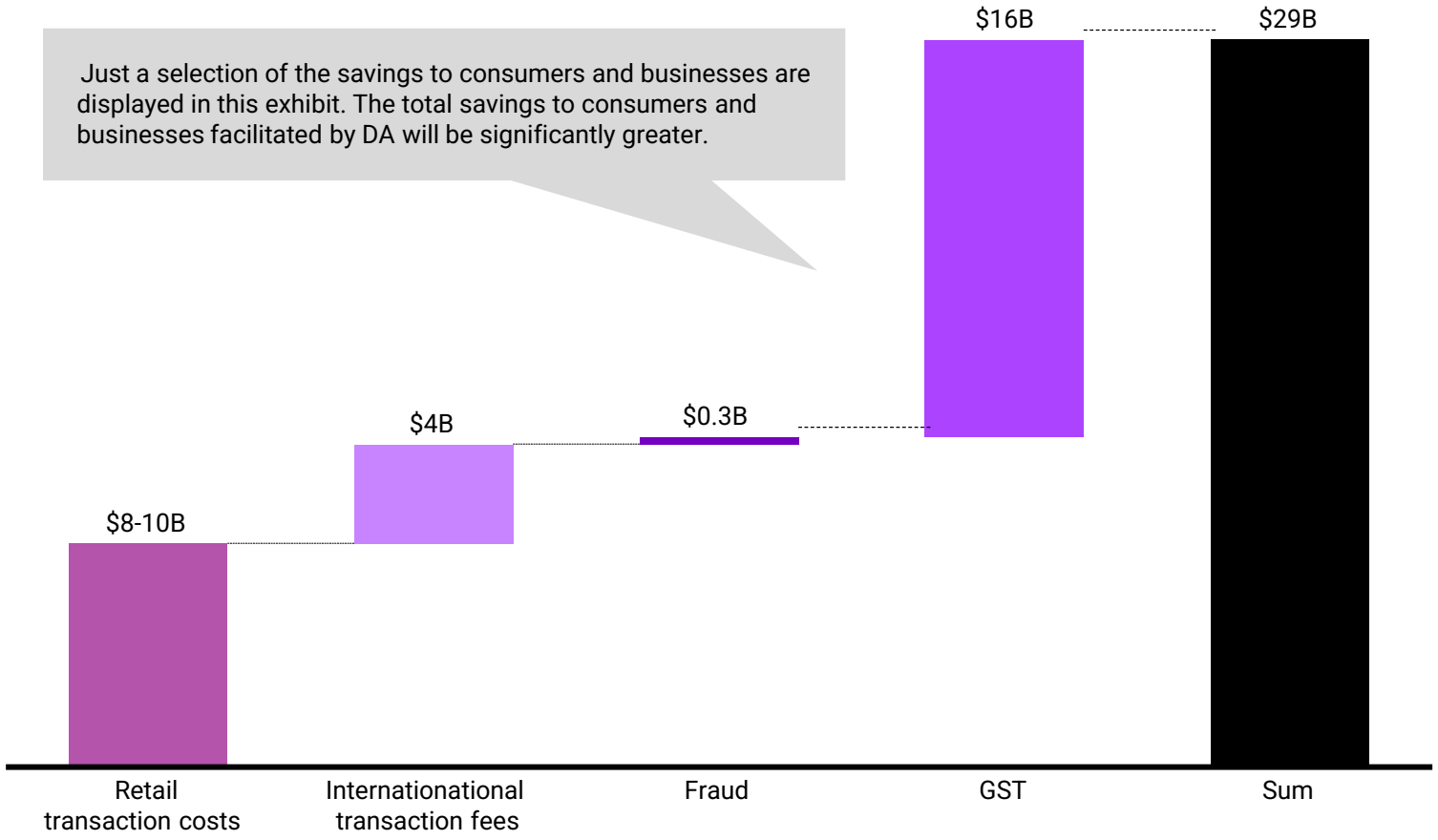
in **tax revenue** from the DA sector per year by 2030

Notes: See appendix 1 for methodology and sources.

Annual Investment in DA firms Australia could grow to $15 - $20 billion per year by 2030

Appendix exhibit 3: Select consumer and business savings

$ billions, annual, 2030



$8-10 billion

saved per year in **retail payment resource costs**

$4 billion, or $160 per person

saved by consumers per year in **international transaction fees**

$300 million

saved per year in **losses avoided from fraud** due to the improved security of DA transactions

$16 billion or 80 hours per business

saved per year from **reduced tax and invoicing administration**

Notes: See appendix 1 for methodology and sources.

List of keywords for digital assets

Keywords used to define DA sector in data analysis

blockchain	cbdc
cryptocurrency	"smart contract"
"crypto currency"	ethereum
"crypto-currency"	bitcoin
stablecoin	tether
"hash function"	binance
"digital token"	defi
"security token"	"decentralised finance"
"utility token"	"proof of stake"
"community token"	"crypto mining"
"non-fungible token"	"crypto-mining"
NFT	"cryptocurrency mining"
web3	"digital money"
"web3.0"	"crypto-asset"
"distributed ledger technology"	"crypto asset"
DLT	"digital asset exchange"
"decentralised autonomous organisation"	"digital custody"
DAO	"digital custodian"
"Central bank digital currency"	

Outcomes-based regulations provide industry with the flexibility to achieve regulatory goals in innovative and efficient ways

Outcomes-based regulations

Regulations should specify the outcomes that the sector must achieve, but **allow the sector to choose the most appropriate technologies and processes** to achieve these outcomes.

Key benefits

- ✓ Outcomes-based regulations can facilitate more **innovative and competitive markets** than prescriptive rules would, by incentivising organisations to innovate and develop the most efficient processes to achieve regulatory outcomes.
- ✓ As outcomes-based regulations can **adapt to rapid developments in the sector** without incurring the costs of regularly amending legislation.

Case study: Point-to-point transport regulation in NSW

Background

In 2016, NSW Government regulations **transitioned from prescriptive rules-based taxi regulations to outcomes-based regulations** of point-to-point transport to improve competition, innovation and passenger satisfaction with transport services.[1]

Summary of reforms to point-to-point transport regulations

Regulation before the reforms

- Regulations contained **detailed prescriptions** on communications equipment and methods of vehicle identification, but did not accommodate innovations such GPS technologies in fare meters.
- Regulations only accommodated traditional rank-and-hail taxi services and hire cars and **could not be adapted to accommodate app-based ridesharing businesses**.

Regulation after the reforms

- The new regulations are designed to **facilitate new forms of point-to-point transport, regardless of the technologies used** to provide these services.
- Rather than needing to comply with prescriptive rules, service providers must now establish a Safety Management System which allows them to **choose appropriate methods to reduce risk to consumers.**

Outcomes

The shift to outcomes-based regulations has saved the taxi and hire car sector over $30M per year in compliance costs. The reforms saw rapid growth in the market, with a 45% increase in the number of point-to-point transport trips taken across Sydney, Wollongong, Newcastle and Central Coast over the 18 months after they were introduced.[2]

Sources: 1. NSW Government and Point to Point Transport Commissioner (2020),Transport for NSW (2020), NSW Legislative Council (2020). 2. Transport for NSW (2020), NSW Productivity Commission (2022).

Agile, iterative and collaborative regulation ensures that the sector can efficiently respond to emerging opportunities and challenges

Agile, iterative and collaborative regulation

The regulatory development process should be designed to allow regulators to **respond rapidly to developments in the sector**. This can be facilitated through flexible instruments such as guidance notes and frequent iterations informed by joint problem-solving between ecosystem players, including regulators, businesses and consumer groups.

Key benefits

✓ Agile non-legislative instruments facilitates frequent revisions to policy to **allow regulatory frameworks to adapt to evolving industry dynamics**.

✓ Collaboration ensures that regulation is designed in a way that is **relevant to the sector**, achieving regulatory objectives while minimising the burden on ecosystem players.

Case study: Buy-now pay-later (BNPL) regulation

Background[1]

Early regulation of the successful BNPL sector was **guided by agile policymaking and strong collaboration between industry, government and consumer groups.** In response to a Senate inquiry recommendation, BNPL businesses developed an industry Code of Practice after extensive consultation with consumer advocates, regulators and industry members. This Code is now administered by the Australian Finance and Industry Association and is supported by formal ASIC oversight.

The Code has strengthened consumer protections by requiring compliant members to (among other things):

- provide hardship assistance for consumers which mirrors the standards required for credit products
- prevent consumers from making additional BNPL purchases when they are behind on repayments – a feature that is not required of credit products under existing regulations.

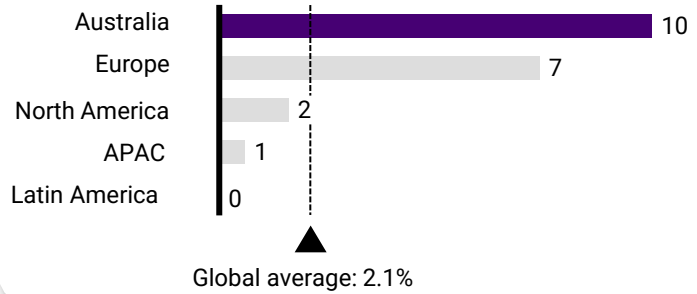
Outcomes

The cooperative and productive relationship between regulators and the BNPL sector facilitated the development of an agile regulatory framework which supports business innovation while providing protections for consumers.

This enabled Australia to become a global leader in BNPL, with BNPL transactions accounting for a significantly greater share of e-commerce transactions in Australia compared to its international peers.

BNPL share of e-commerce transactions[2]

Per cent, 2020



Sources: 1. Australian Finance Industry Association (2021), Australian Treasury (2021), ASIC (2020), Australian Payments Network (2021). 2. World Pay Global (2021).

Regulations that are developed in light of global developments can improve efficiency and unlock international opportunities for the sector

Global-market focused

Due to the borderless nature of DA, the regulatory approach should **consider international developments in the space, and align where appropriate**. Regulators should consider how domestic regulations may interact with the global economy, and how maximum efficiency can be achieved while meeting Australia's objectives.

Key benefits

- ✓ By considering how domestic regulations interact with the international digital asset markets, Australian regulations should be designed to **improve the international competitiveness and efficiency of the Australian DA sector.**
- ✓ **Cross-border consistency will support growth in the sector** as knowledge, skills and resources will flow more easily between countries.

Case study: Alignment with international financial reporting standards

Background

The development of Australian accounting standards has **benefited from consideration of cross-border approaches**. In 2002, the Australian Financial Reporting Council harmonised its national accounting standards with the International Financial Reporting Standards (IFRS), taking effect from 2005.[1] This transition process involved a series of amendments to previous Australian Accounting Standards to ensure they were compliant with IFRS.[2] IFRS is now the de facto international standard, with over 150 jurisdictions aligning with the standard.[3]

Outcomes

While some Australian organisations noted challenges with complying with the IFRS-aligned Australian Accounting Standards, organisations generally experienced the following benefits from cross-border consistency:[1]

Key benefits of cross-border consistency in financial reporting standards[1]

Significant cost savings in preparing financial reports for transnational organisations

More accurate analyst forecasts, as financial statements are more informative of a business' market value

Improved ability to compare Australian businesses with global peers

Greater international mobility of users and preparers of financial statements

Sources: 1. Pawsey (2016), Australian Accounting Standards Board (2017). 2. Australian Accounting Standards Board (2007). 3. IFRS (2022).

Risk-calibrated regulations minimise the compliance burden of low-risk activities, ensuring that regulator resources are used most efficiently

Risk-calibrated regulation

A risk-calibrated approach to regulation ensures that regulatory burdens on ecosystem players are **proportionate to the level of risk** associated with an activity.

Key benefits

✓ Businesses that which perform low-risk activities experience **minimal, streamlined and predictable regulatory processes**, which provides these businesses with the flexibility to innovate.

✓ Regulators can **use their resources more efficiently** by focusing on high-risk activities.

Case study: A risk-calibrated approach to Australian merger law

Background

The ACCC has a **multi-stage informal merger review process which applies varying levels of scrutiny depending on the risk** that a merger could harm competition.[1]

There are generally four sequential phases of review: a rapid pre-assessment, two phases of public review and litigation.[2] At each stage, transactions considered to have a low risk of harm are cleared, while transactions of concern proceed to the next phase of review. Earlier phases of review are faster and less resource-intensive, minimising the compliance burden for low-risk transactions.

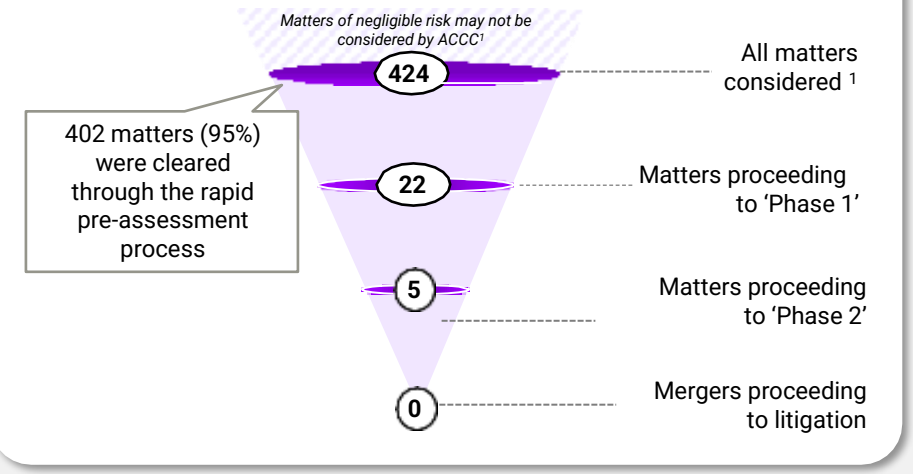
Outcomes

In 2020-1:[2]

- Rapid pre-assessments were used to clear 95% of matters considered
- No matters proceeded to a costly litigation process

This ensures that low-risk mergers are allowed to proceed with minimal compliance outlay.

Outcomes of ACCC merger reviews, 2020-1[3]



Notes: 1. The ACCC pre-assesses all mergers that it becomes aware of through monitoring, requests for pre-assessment or 'courtesy' notifications where clearance is not sought. The ACCC's informal merger guidelines encourage merger parties where products are in related markets or the post-merger entity will exceed 20% market share to notify the ACCC ahead of the transaction. This suggests that there are other mergers of negligible risk (e.g. because merger parties are small and exist in a highly competitive market) which are not notified to the ACCC. 2. 'Phase 1' refers to public reviews prior to a Statement of Issues (SOI) assessment, while 'Phase 2' refers to a review that continues post-SOI. 3. The matter could exit the informal review process because the merger is cleared, the merger parties withdraw their application, or the ACCC discontinues their investigation for some other reason. Sources: 1. ACCC (2017), *Competition and Consumer Act 2010* (Cth) s 50. 3. ACCC (2021).

Summary of work underway to support DA skills, innovation and investment

Sector objective	Selected Australian initiatives	Led by…	Description	Overall assessment
Develop a skilled workforce	**Digital Employment Forum**	Tech Council and Digital Skills Org	The Digital Employment Forum brings together educators, tech businesses and researchers to develop a strategy to attract and train 1 million tech workers by 2025.[1]	There is good progress towards this objective with initiatives led by both industry and government.
	National Skills Commission	National Skills Commission	The National Skills Commission provides detailed market analysis. This data can inform areas such as skilled migration policies and student career choices.[2]	
Accelerate industry innovation and investment	**DA regulatory framework**	Federal Government	The Government has committed to a token mapping exercise to inform regulation of digital assets, and has also indicated it will seek to develop a regulatory framework for exchanges and custody arrangements.	While there are some emerging initiatives to support innovation and investment, including the Treasury consultation paper on CASSPrs,[10] **the sector would benefit from more DA-focused, cohesive and comprehensive policy**.
	Sydney Tech Central	NSW Government	To encourage collaboration within industry and with universities, the NSW Government is developing a tech precinct near major Sydney research institutions.[4]	
	Research into a domestic wholesale CBDC	RBA and commercial banks	The RBA and industry partners developed a proof-of-concept for a wholesale (interbank) CBDC. The project showed how a CBDC could improve efficiency and security.[5]	
	ASIC Innovation Hub	ASIC	ASIC's Innovation Hub provides informal guidance to eligible fintech startups on navigating Australian regulations and facilitates testing of new fintech products through its Enhanced Regulatory Sandbox.[6]	
	RMIT Blockchain Innovation Hub	RMIT	RMIT Blockchain Innovation Hub brings together industry and academia to develop blockchain solutions and to publish research and submissions on blockchain policy.[7]	
	Blockchain Australia advocacy	Blockchain Australia	Blockchain Australia advocates for the economy-wide adoption of DA tech by developing industry best-practice codes and policy recommendations. It also hosts the annual Blockchain Week to catalyse activity in the sector.[8]	
	DA offerings from commercial banks	Commonwealth Bank	In 2021, Commonwealth Bank began allowing customers to trade in 10 different digital coins in its banking app, becoming one of the world's first commercial banks to do so. This was seen to validate the commercial legitimacy of DA in Australia.[9]	

Notes: 5. While the RBA and its partners have investigated the potential for wholesale CBDCs in Australia, they have concluded that there is not current public policy case for the establishment of a retail CBDC. Sources: 1. Tech Council (2022). 2. National Skills Commission (2022). 3. Australian Government (2022). 4. Tech Central (2022). 5. RBA (2021). 6. ASIC (2021). 7. RMIT Blockchain Innovation Hub (2022). 8. Blockchain Australia (2022). 9. Commonwealth Bank (2021), Australian Financial Review (2021a, 2021b)., 10. Treasury (2022)

Holon case study

Holon is an Australian company, aiming to revolutionise data storage

Holon is an Australian company, working to revolutionise data storage. Holon is investing in, and building infrastructure for, the global Filecoin data storage network - contributing to building the backbone of Web 3.0 cloud.

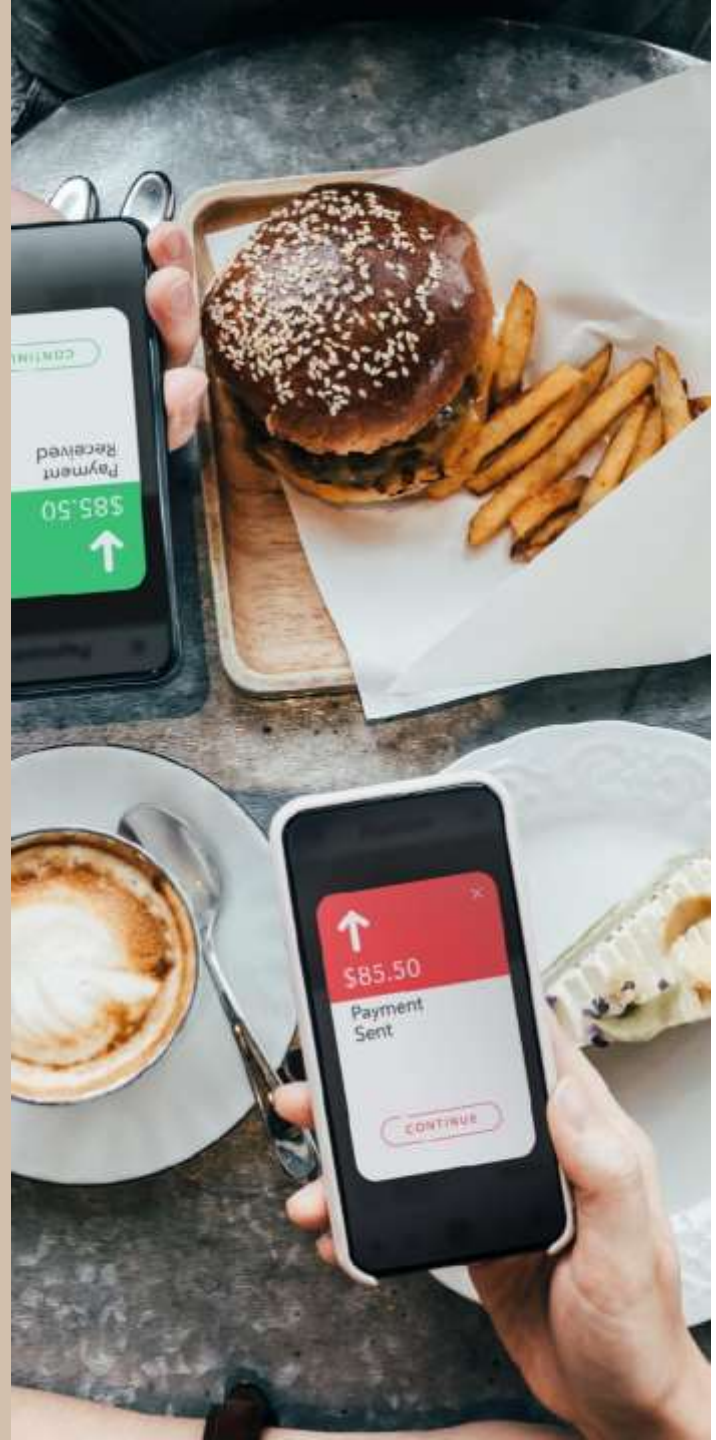
Filecoin's decentralised and distributed data storage model offers new levels of data sovereignty (ownership of data), robustness (through distribution) and immutability (via cryptography). Filecoin will support the next iteration of the internet - Web 3.0 - that includes non-fungible tokens (NFTs), the open Metaverse, and new business governance models such as decentralised autonomous organisations (DAOs) - to name just a few.

Holon's driving goal is to support all Australian businesses and attract FDI into Australia with this new service, which is robust, cost effective and verifiably secure data storage. Holon's storage capacity will scale to 140 PiB by the end of 2022 that is the equivalent of 315,000 years of music.

Holon's shareholders and partners have invested more than $30 million dollars to date to acquire the data centre hardware, staking collateral and team required to go after the opportunity. In the next ten years, Holon is expected to scale the hardware and collateral upwards of $5 billion, creating up to 100 new jobs with permanent staff, consultants and specialists generating more than $1 billion in economic contribution.

Sources: Holon

Cash App case study



Cash App is integrating digital assets into personal finance and payments

Digital wallets and payments via smartphone are becoming increasingly prevalent, with Cash App (developed by Block Inc.) being one such example. Cash App providers users with instant and free peer-to-peer money transfer services, and allows users to make purchases via a digital debit card and also invest in stocks.

In recognition of growing demand for access to digital assets from users, bitcoin was integrated into Cash App in 2018. This allowed customers to buy, sell and transfer bitcoin, similar to how they manage their fiat money. In 2022, Cash App integrated the Lightning Network, enabling users in the US to send bitcoin to any compatible Lightning wallet, anywhere in the world – instantly and for free.

The integration of bitcoin into services like Cash App highlights the increasing viability of DA technology to not only act as a store of value, but as an everyday means of exchange. The outcome of which is a significantly expanded use case and take up of DA technology in personal financial management. In the case of Cash App, more than 3 million customers purchased or sold bitcoin in 2020 and in January 2021 alone, more than 1 million people purchased bitcoin for the first time.

Sources: Afterpay

Zepto case study

Zepto is an Australian FinTech that's transforming the way value moves through the digital economy

While the economy has undergone a digital revolution, the payments infrastructure for merchants has not kept up. A confluence of factors across market and consumer demand, technology innovation and public policy has delivered a moment of transformative change for the payments industry. However, merchant access to this modern payments paradigm remains an issue due to legacy frameworks.

The Zepto platform provides merchants with efficient, scalable, data rich and secure access to Australia's digital payments infrastructure. As a payment solutions provider, Zepto is facilitating merchants to reach a future state that includes real-time payments, open banking, blockchain technology and yet-to-be imagined stores of value. The Zepto platform is designed to move any future store of value, not just fiat currency, allowing its customers to support DA technologies as they emerge and become mainstream.

Zepto is a by-developers, for-developers Financial Cloud Products provider that offers composable and scalable API-first access to wherever value and data are stored, starting with the bank account. This enables merchants to freely devise their own unique payment flows, and realise the benefits of the digital revolution.

Zepto currently serves hundreds of Australian businesses and is growing. Zepto's partners include Binance Australia, Superhero, Novatti Group, Nimble, Powerpay, Spaceship, Bluestone, Rentbetter, Biz Pay and Get Blys. The company is growing rapidly, and is on track to process more than A$50 billion in payments volume in 2022**.** Zepto is assessing expansion into international jurisdictions including New Zealand and the USA. Zepto is attracting significant investment and adding value to the economy as it scales. As a Byron Bay headquartered, remote workforce Zepto is also providing job opportunities for many across regional Australia.

Sources: Zepto

This document is intended for general informational purposes only. The analysis in this report was commissioned by Technology Council of Australia and prepared by Accenture on behalf of Technology Council of Australia.

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