

Stockbrokers and Financial Advisers Conference 2018
Dominic Stevens, Managing Director and CEO
Stronger foundations for resilience and growth
23 May 2018



Good morning and thank you for inviting me to speak at your conference for the second year running. It is an honour to be here and great to be in Melbourne.

The stockbrokers and financial advisers community is one of ASX's most important stakeholder groups. I thank you for your business and ongoing support.

At last year's conference I was a relative newcomer to the CEO role at ASX, having spent some time on boards and consulting, after a 25-year executive career.

Given the move back into executive life, I'm often asked, why did I return?

I think the answer lies in the unique place ASX and our industry finds itself in today. It's a compelling time to be involved.

- The size of Australia's large savings system continues to expand rapidly and with it the demand for new, contemporary financial products and services.
- More recently, acceleration in new technology is offering an unprecedented opportunity to transform the way exchanges and financial services operate.

These features will help ASX raise the bar on delivering for our customers. The potential to build a stronger, more resilient and robust platform from which we can make the lives of our customers easier and more efficient has never been greater.

- Of course, realising this potential is not without challenge. Challenge in terms of execution and the ever-present threat of market disruption for all of us; not just from within our industry, but from a wave of new innovators that have the potential to cut through legacy systems and bureaucracy.

ASX is more than up for this. We have a strong history of innovation – the first to dematerialise shares, first to launch interest rate and stock index derivatives outside the US, first to introduce overnight electronic trading, and now the first to adopt DLT for a major platform upgrade. ASX remains committed to innovation to help maintain the high regard in which Australia’s financial markets are held globally.



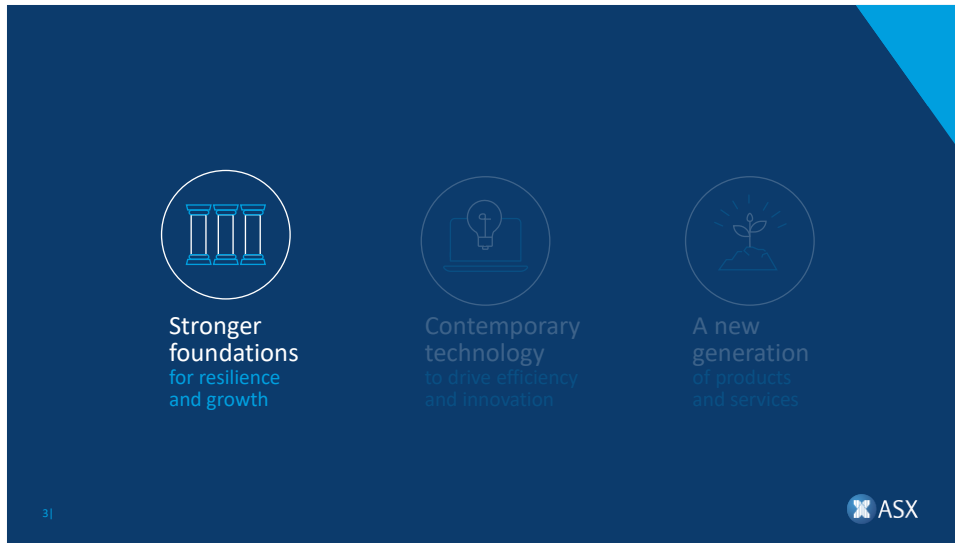
Today I want to talk about the importance of building stronger foundations for our industry. I will address this across three areas that I see benefiting the broker and adviser community, and your customers.

- Firstly, stronger foundations to ensure resilience, reliability and market integrity.

ASX plays a unique role at the heart of the Australian financial markets. With this comes great responsibility. A responsibility to invest in our processes and systems and ensure that they remain as resilient and reliable as possible. We know that this is vital for you and your businesses, and that the good and enduring relationships you hold with your customers depend on it.

- Secondly, stronger foundations – created by contemporary technology – that enables stakeholders to reduce cost and inefficiency. I’ll talk more about this in a moment.
- And thirdly, stronger foundations to foster a new generation of products and services.

We see across our industry – in fact, all industries – a wave of technological change that presents new opportunities. We believe that robust, contemporary platforms can provide us, and you, with the potential for greater choice and an expanded range of on-exchange products. It will also help us meet the increasing demand for real-time, source of truth data and information, which will allow us to work together to provide meaningful and valuable analytics and insights.



Building stronger foundations is particularly relevant for ASX given we are in the process of upgrading or replacing a number of core systems that have served us and the Australian financial markets well over the last 20 years.

However, it's not just about strengthening technology and infrastructure, it's also about ensuring strong relationships across the industry – with brokers, banks, custodians, advisers, investors, companies, regulators, and all the services providers that support you. The quality and strength of these relationships will be key to delivering innovation and benefits to customers in the coming years.

Many of you have been instrumental in working with ASX in recent years to develop new products, and to design and implement significant system and process upgrades. Our new futures trading platform and the introduction of T+2 settlement are good examples of this successful collaboration. These initiatives set a precedent for continuing to work together to realise further operational and business opportunities to support growth.

I'd now like to talk a bit about some of the initiatives that are less known, which go to improving the ASX platform for customers.

Focus on core operations and future growth

	Listings	Trade execution	Post-trade
Core customer value proposition	Access to capital Listings integrity Trusted brand Investor choice	Liquidity Risk management Market integrity Efficient and timely access	Capital efficiency Risk reduction Operational efficiency Settlement certainty
Macro growth drivers	Expanding savings system Product diversification Growing capital needs	Globalisation of markets Automation of OTC markets 24 hour trading	Regulatory developments Operational efficiency Capital efficiency
ASX initiatives	Listings franchise expansion ETF/ETP listings mFund growth LIC/LIT listings	Growing customer ecosystem ASX Benchmarks (BBSW) Centre Point innovation ALC/ASX Net solutions	Distributed ledger technology OTC Clearing Margin efficiency ASX Collateral
Licence to operate	Market Announcement Platforms upgrade Secondary data centre	Business monitoring tools and processes ASX Net upgrade	Listings compliance enhancements Digital refresh
		Operational infrastructure CHES replacement	Customer service improvements Investor education

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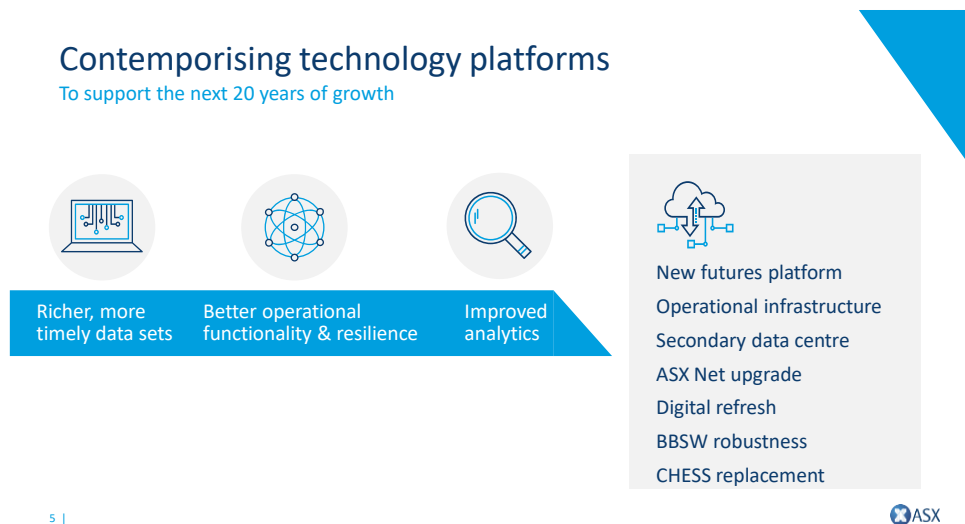


Don't worry, I'm not going to go through this line by line.

I often talk to this slide as part of ASX results announcements. It summarises our core value proposition across listings, trade execution, and post-trade, alongside some of the macro factors we see driving growth.

Given today's theme of stronger foundations, I want to focus on the bottom section of the slide – and the importance of balancing investment in core operations with planning and preparation for future growth. This is a vital dichotomy. When we think about ASX initiatives, we include the enhancements and developments that many of you would be familiar with. These projects support business growth in the industry – initiatives like mFund, ETP expansion, derivative product development, DLT, etc.

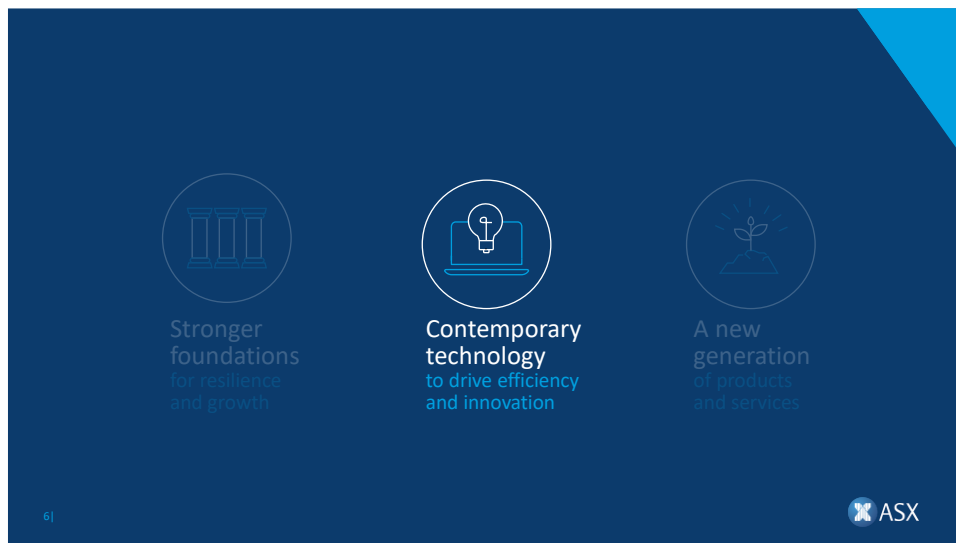
Importantly, underpinning these investments and programs, are those that maintain the proper functioning of markets on a day-to-day basis. We refer to these as our 'licence to operate' initiatives. These activities maintain our brand, reputation and core operations. They ensure the reliability and robustness of underlying infrastructure and the integrity and effectiveness of market operations.



ASX is currently working on, or has completed, a number of projects that improve the services we provide to customers, create richer data sets for enhanced analytics, and maintain our commitment to stability and resilience across all platforms and systems.

- Already implemented is the new futures trading platform that replaced SYCOM. This is delivering improved functionality and latency, and better analytics capability and diagnostics.
- Alongside CHES replacement, which gets a lot of airtime, there is also the logical opportunity for ASX to modernise the operational infrastructure and processes that support our cash equities trading, clearing and settlement operations. This is not a small undertaking, but will be completed in time for the launch of the replacement of CHES.
- The Australian Liquidity Centre – or 'ALC' – is a best-in-class financial markets data centre. It provides the fastest and most direct access to connect the world to Australia's financial markets. It plays a central role in the effective exchange of capital, risk, information and services. With the continued development and growth of the ALC, it is now time to upgrade and move our secondary data centre to an equally modern facility. Our secondary centre has been in place for over 20 years and has served ASX well. Its upgrade will deliver a more contemporary communications platform and hardware, and improve overall resilience.

- The ASX Net communications network that connects the ALC and the secondary data centre to customers in Australia and overseas, is also being enhanced to an 'any to any' connection capability. This means anyone on our network can connect to anyone else they need or want to.
- We are refreshing ASX's digital presence and upgrading the market announcements platform to ensure we deliver the functional enhancements you are looking for.
- And earlier this week, we introduced a new calculation methodology for the BBSW benchmark to deliver greater accuracy and transparency, with calculations based on actual rather than quoted trades. This is another example of ASX putting in place a strong foundation that will encourage trading by improving trust in the robustness and reliability of BBSW.



So, now to contemporary technology.

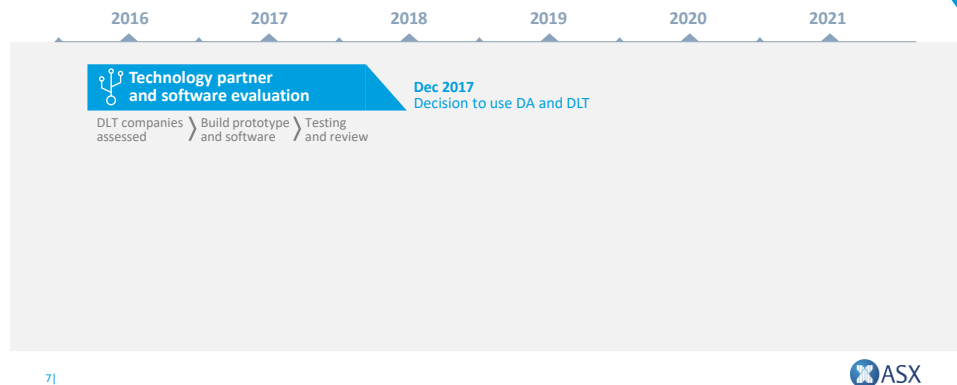
ASX has flagged to the market an increase in our technology investment over the coming years. We see this as a good thing for ASX, a good thing for you – our customers – and a good thing for the financial markets. This requires a focus on our technology, processes and controls being 'fit for purpose'. It's also about assessing technology to understand how it can drive efficiency and promote innovation – not just for us, but for the benefit of an increasingly diverse ecosystem.

The CHES/DLT story is currently our highest profile initiative – both here in Australia and on a global stage. Many of you have been directly involved in shaping this program of work, which will contemporise CHES and lead to greater efficiencies through improved record-keeping, reduced reconciliation, more timely transactions and richer, real-time, source of truth data.

Our program to date incorporates three significant pieces of work.

Extensive evaluation to inform DA and DLT decision

Enterprise-grade software developed to test for functional and non-functional aspects



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Initially, there was the evaluation of 'blockchain' as a potential technology solution and Digital Asset as ASX's technology partner. This multi-year investigation involved building a subset of CHES clearing and settlement functionality to enterprise-grade specification.

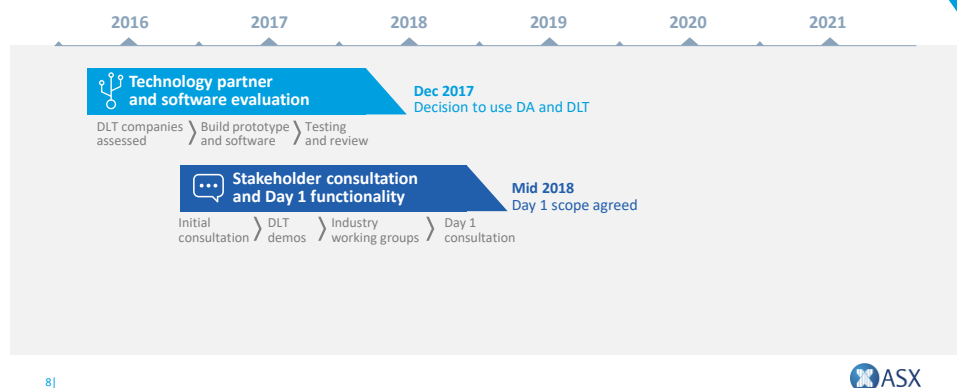
The aims of the evaluation were to:

1. Build the base functionality of the current CHES system – such as registration, clearing and settling trades, as well as some common corporate actions
2. Meet or exceed all the non-functional performance and resilience metrics of the current CHES system, and
3. Ensure the new system could deliver significant new functionality in response to stakeholder feedback.

ASX and Digital Asset were then able to test the functional and non-functional aspects of the software, including the quality, security, scalability and usability of the new technology. ASX also commissioned two independent security reviews to assess the capabilities of the technology, both of which were positive.

Stakeholder input drives CHES replacement planning

Currently consulting on Day 1 functionality, timing and implementation



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Overlapping this was an extensive stakeholder engagement program. ASX received 47 detailed responses to its initial consultation phase in late 2016 – including a submission from the Stockbrokers and Financial Advisers Association. In the last 18 months, there have been more than 600 people from over 120 organisations through the ASX DLT demonstration suite.

The industry working groups - of which there were 6 - focussed on areas like improving corporate action processing to lower costs and reduce and remove operational complexity.

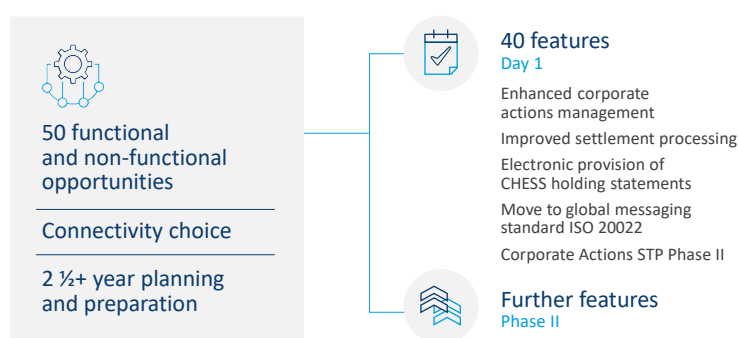
Last month ASX released a second consultation paper outlining the proposed new features and indicative timetable for CHES replacement. This reflects the input and feedback from all stakeholders – including the broker and adviser community – on what the new system should deliver.

We value the input and expertise of SAFAA CEO Andrew Green and others on the ASX Business Committee who have been important contributors throughout the process.

Industry working groups, which included institutional and retail brokers, custodians, software vendors, share registrars and associations such as the Australasian Investor Relations Association, Australian Shareholders' Association, and Governance Institute of Australia, helped identify and prioritise around 50 opportunities to progress with the new system.

Proposed new functionality

Provides streamlined processes and standardisation



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Subject to the consultation process now underway, ASX is planning to deliver 40 enhancements on 'Day 1'. This includes all high priority requirements requested by stakeholders, almost all of the medium priority features and a number of lower priority enhancements. Others will be delivered in further releases of the new system, or as part of programs running in parallel to CHES replacement.

Streamlining processes and standardising data and information were regarded as a high priority for many stakeholders. This is reflected in proposed Day 1 functionality detailed in the consultation paper, which includes:

1. Making it easier to participate in corporate actions. The proposed new system will provide a standardised process for electronic election of Dividend Re-investment Plans and Bonus Share Plans, facilitate electronic acceptances for entitlements, and enable electronic payments in AUD.

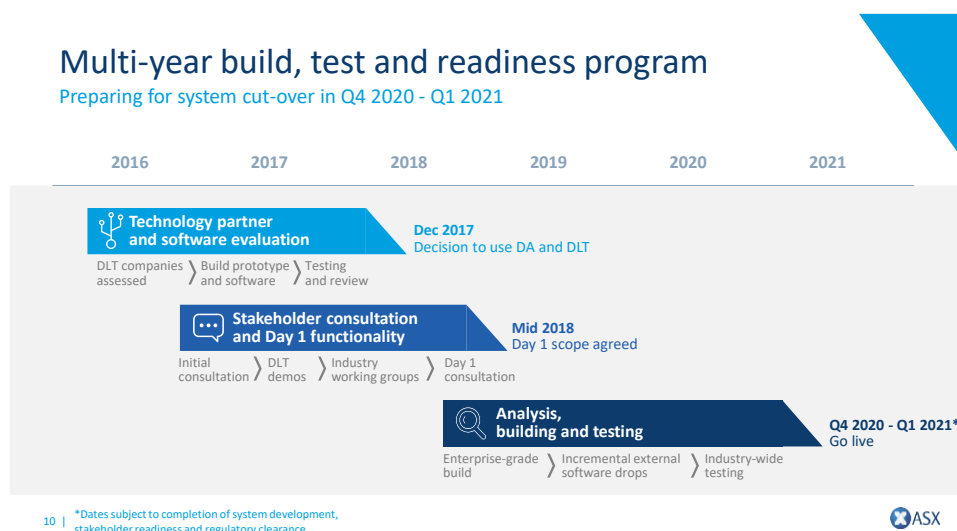
The optional functionality will allow payments made to issuers – which currently occur outside the CHES system – to take place within the new system. Overall, corporate actions enhancements will streamline processes, reduce the paper-based, manual processes currently in use, and provide additional certainty of electronic receipts, changes or cancellations.

2. The new system will improve settlement processing by reducing pre-settlement risks, enhancing bilateral transaction matching and providing optional settlement functionality.

New functionality will allow for stock to be locked and transferred on the day of settlement, providing certainty of settlement for the broker and protection to the end investor in the event of a clearing participant default.

3. An enhancement to allow holders to opt in to receive their CHES statements via email will improve the speed of delivery, reduce paper-based processes, and be more effective and cost efficient.

Phase II of an ASX initiative to improve the announcement and dissemination of corporate action information will commence this year. This will benefit the market by providing consistent and informative issuer announcements across all corporate action events. The initiative includes the adoption of the latest global standard – ISO 20022 for ASX corporate action notifications, in line with global trends and the CHES replacement project. This adoption allows opportunities for global interoperability and for you, our customers – including global financial institutions – to create straight-through processing efficiencies and reduce costs.



The third major piece of work, which has commenced and will take into account feedback from the current consultation, includes the analysis, build and testing of the new system.

For the next 18 to 24 months, ASX will continue to work with you to enable you to prepare for the implementation of the new system.

The proposed multi-year timetable has been developed to allow time for customers to assess the new technology, decide on the best connectivity option, and plan for and participate in comprehensive industry-wide testing. Our goal is for all participants to be as confident as we are in the resilience and readiness of the new system.

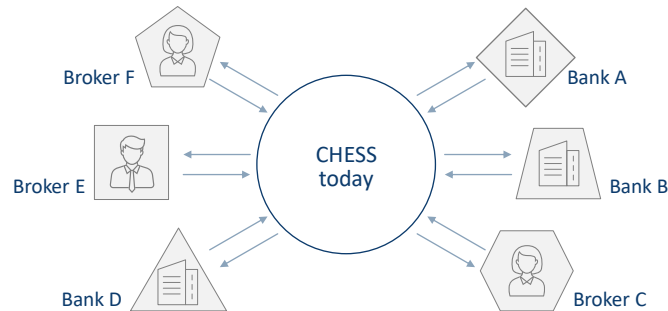
Pending outcomes from the current consultation, we are working toward an indicative 6-month window for implementing the new system – estimated to occur between Q4 2020 and Q1 2021.

Beyond the specific benefits we believe the new system offers, we also think the adoption of distributed ledger technology provides the broader marketplace an opportunity to create a new generation of products and services – some of which can't be conceived using today's technology.

To understand some of the broader benefits and potential, it's useful to start with a view of the current environment.

CHES today

Sends messages to reconcile many and different systems



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CHES today is a highly reliable infrastructure that has operated for over 20 years – and is more than capable of operating for a few more.

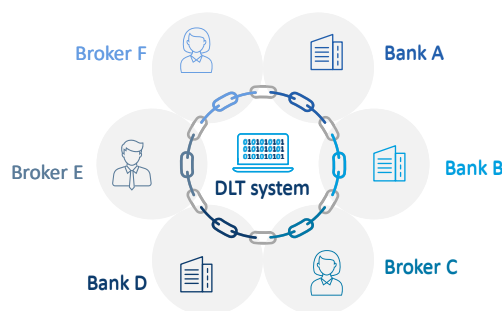
It was ahead of its time with the introduction of a sophisticated message-based system – dare I say the blockchain of its day - that supports name on register, and the dematerialisation of paper-based share certificates.

Clearing and settlement participants who are connected to CHES have their own bespoke databases, which are different to ASX's and typically different to each other.

Messages are constantly sent back and forth to CHES in order to reconcile data with ASX.

DLT-based CHES

Offers real-time, single source of truth data on standardised databases



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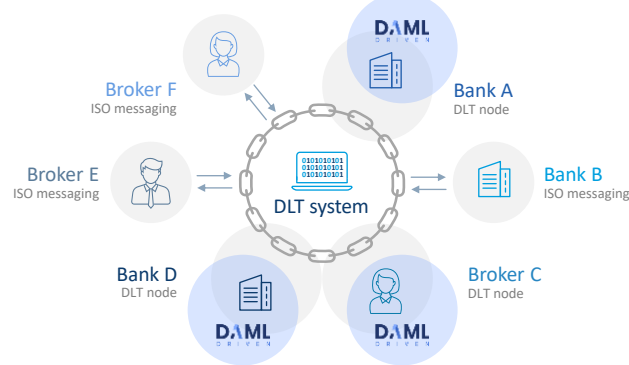


The DLT-based system we are building allows participants to 'take a node' – which is a database that contains your data, and only your data. This is part of the 'source of truth' database operated by ASX. Your node is kept in real-time synchronisation with the ASX database. This is because the Global Synchronisation Log, or blockchain, enables you to independently and mathematically prove that your node is correct.

If you choose to take a node, you will have real-time access to all information that is pertinent to you. You will be able to reduce your risk and cost by no longer having to reconcile your databases with ASX's and you will be able to use the richer data set to provide better products and services to your customers.

DLT-based CHESS offers flexibility and choice

Connection options via DLT node or message-based like today



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In addition, those taking a node will have a database structure that is identical to the database structure used by other participants. If multiple participants across the industry chose to connect to ASX in this way, then software or applications produced for Bank A would be able to be run on top of Bank B or Broker C's database.

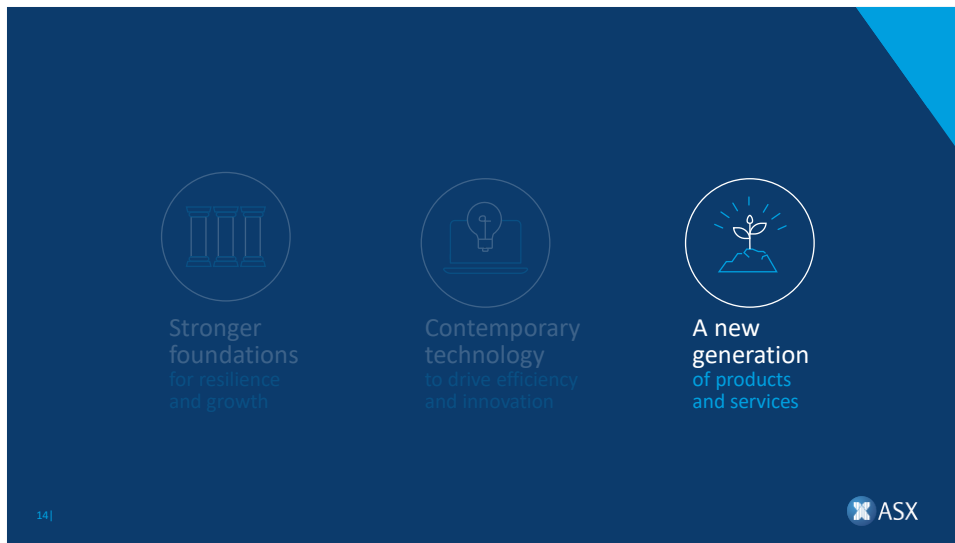
This is what I mean when I talk about the potential that strong foundations – built on contemporary technology – offers our industry.

Standardisation of data structures and databases will allow software development to flourish and infrastructure to be shared in a common ecosystem – thus lowering costs for participants and enabling new products and greater efficiencies to be developed and delivered more rapidly. What is particularly exciting is the ability for innovation to occur once data is made available, more accurately, and in real-time. When trading is happening in nanoseconds, it is easy to forget that data flows much slower once the trade has occurred.

To enable this software innovation, Digital Asset recently released the first version of its software development kit, which allows users to efficiently write business logic on to the node, in effect directly onto the source of truth. We believe this will allow the modular production of a rich set of back office workflow and business logic tools.

So, as you can see, the DLT-based system we are proposing offers choice as to how you interact with the new system. If you do not want to 'take a node', you can interact in the message-based way you do today.

CHESS replacement is a very important project. It has the ability to make significant leaps in efficiency and new functionality across the industry.



Strong foundations will also enable the creation of world-class products and services to satisfy the \$2.6 trillion – and growing – savings system.

We need to ensure we capture this growth by continuing to offer you a diverse range of products with which you can meet the needs of your customers.

The demand for quality products and trusted advice will only increase, as clients demand greater transparency and independence. Listed product, which is becoming more diverse and catering for a wide range of investor needs, provides a great platform from which advisers can help investors build diversified portfolios at low cost.

New products and services

To meet increasing and changing investor appetite



15 | ASX Investor Study 2017; ATO self-managed super fund quarterly statistical report – Dec 2017



Last year I spoke to some of the significant statistics across the industry. The updated numbers are equally impressive:

- 6.9 million adult Australians hold investments through an exchange
- Exchange available investment products - like shares, ETFs, active ETFs, mFunds, warrants, futures and options - are more common investment choices than non-exchange products like cash or property, and are favoured by SMSF trustees

- 1.1 million Australians are members of an SMSF and 30% of investors that are not are planning to set one up
- There is currently around \$700 billion held in SMSFs. Of this, more than a third – \$239 billion – is invested via ASX, with a high proportion in large cap Australian equities and a substantial \$157 billion invested in cash and term deposits.

The opportunity remains substantial for our industry – and one around which we continue to build our product strategy.

The vision that ASX has for the Investment Products business is to enable retail investors and their advisers to construct quality portfolios that achieve:

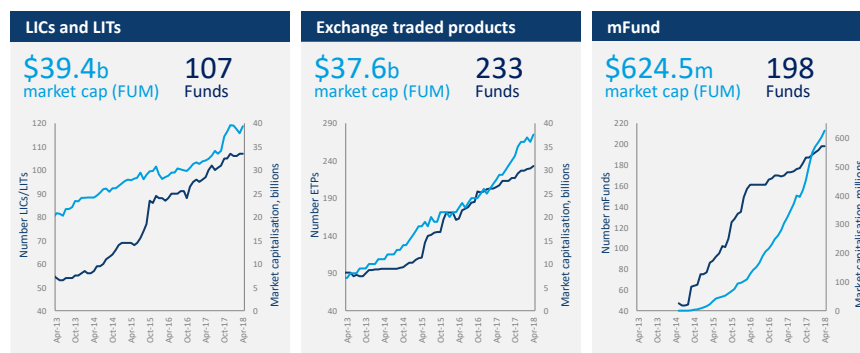
- diversification across asset classes, sectors and geographies
- high levels of liquidity and transparency, and
- the option of capital growth and income.

We aim to achieve this by partnering with the best local and global fund managers to put their products in reach of Australia’s retail investors and self-managed super funds.

Importantly, all of these investments can be held on the investor’s HIN, providing the benefit of name on title, know your client (KYC) efficiency, and the ability to tailor the portfolio to each individual investor’s circumstances.

Strong growth in ASX investment products

Early days, but mFund growing fast



16 | Source: ASX Investment Products Monthly Update – Apr 18



The last five years has seen the range of investment products on ASX grow from 156 to almost 540. It is now valued at over \$77 billion across three core structures – Listed Investment Companies & Trusts, Exchange Traded Products and Managed Funds (mFund).

Listed Investment Companies (LICs) and Listed Investment Trusts (LIT) capital raisings are at record levels – \$4.5 billion has been raised by these funds in the last 12 months, a positive reflection of the appetite from advisers and investors to support new managers coming to market.

ASX continues to be the home of ETPs, with more than 230 funds and \$37.6 billion in FUM, a \$9.6 billion increase over the last 12 months. ETPs enable investors to get efficient exposure to a variety of asset classes at a low cost, both from a management fee and an overall cost point of view.

Similar advantages are offered by the mFund service. It's another example of ASX working with customers to grow the investment supermarket. mFunds enable investors and advisers to get easier and faster access to unlisted managed funds, without the additional fees or administrative overhead of alternatives. This helps investors broaden their investment portfolio; and, importantly, investors are able to buy and sell units in mFund via the same broking services they use to transact shares.

The mFund service now includes 198 funds via 17 brokers. Funds under management exceed \$624.5 million – growth of 93% in the past 12 months alone. The growth of mFund is still in its early days, although it is interesting to consider that ETFs, at the same stage in their lifecycle, were at similar levels and are now valued at \$37 billion.

Adoption of mFund by the financial adviser community and by self-managed super funds is encouraging. We remain committed to developing and growing the service for the benefit of advisers and investors.

A further initiative that has gained traction over the past 12–18 months is the growth of technology listings and listings of offshore companies on ASX.

Our strategy is to list quality companies for the long-term. We seek to provide investors with greater choice through sectoral and geographic investment diversity. Between January 2012 and February 2018 ASX listed 784 companies.

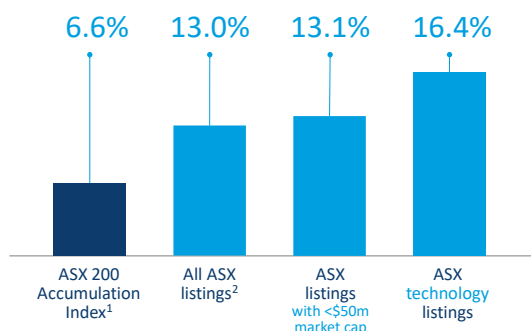
Encapsulating this strategy, and Australian investors' appetite for quality technology stocks, is the New Zealand-based software company Xero. In February this year, Xero consolidated its dual listing onto ASX. Since consolidation, Xero's share price is up around 25%. This is a great story for investors. No doubt, of interest to many of you in the room, is the significant increase in Xero's average daily turnover on the ASX, which is more than double what it was as a dual listing.

CSL is another great example of growing interest in technology – in this case bio-tech – companies. It highlights the strong investor demand to diversify outside of Australia's traditional banking and mining sectors. CSL is now \$82.8 billion in market capitalisation and ranks as the 5th largest company listed on ASX, between Westpac and ANZ. Aside from the good investor story, ASX's strategy to broaden the investment supermarket is helping to ensure quality companies stay in Australia and remain accessible to Australian investors.

These are not just one-off examples.

New listings

Since 2012, new listings have provided attractive returns to investors



¹ \$1 invested in ASX 200 on each day of every ASX listing Jan 2012 – Feb 2018
² \$1 invested in every ASX listing Jan 2012 – Feb 2018 (includes back door listings)



If an investment of \$1 was made in each listing, the internal rate of return is approximately twice the return from the overall market.

I have set out four different internal rate of return results on the slide.

- Firstly, if you had invested \$1 in the ASX accumulation index every time there was an ASX listing (to allow a like for like comparison).
- Secondly, the return of putting the \$1 into each listing.

As you can see, the returns from new listings in general have been greater than investing in the index.

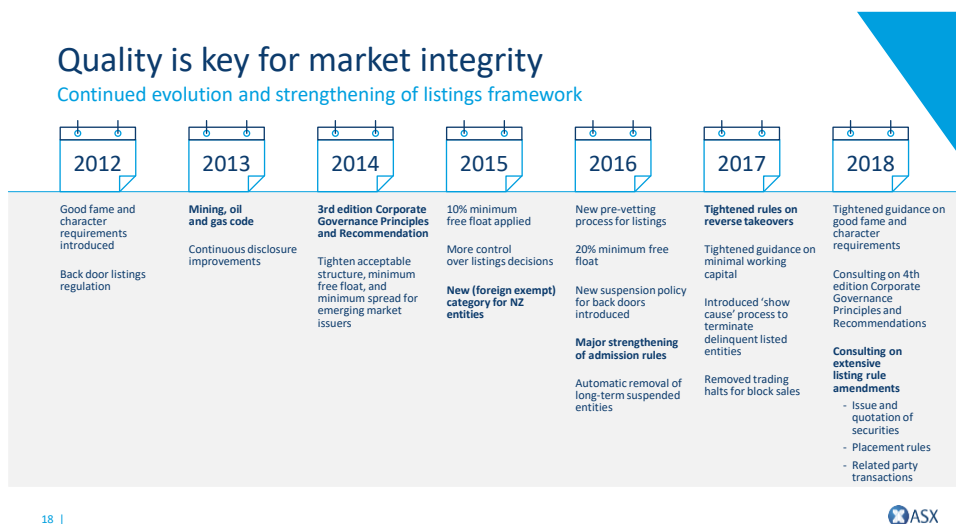
The other categories highlighted here are smaller companies and technology companies. Both have featured in the media of late, and both have seen greater returns than investing in the index over time.

This should not surprise. We would expect investors to be looking for a greater return from a portfolio of companies that are inherently more volatile, and this listings dataset would include companies that have not performed well and companies that have had stellar performance.

Although I am sure I don't need to remind anyone here, past performance is not an indicator of future performance. While the averages show good returns, ASX does not recommend stocks, or assess business models when considering applicants to list. That is not our job, nor is it our expertise – people in this room do a better job than us, so we leave that to you.

However, we do set the listing rules. And through these we seek to ensure that only companies that meet our market's high standards join our board.

This is a vital ongoing commitment, so we are continually evolving and updating our rules and guidance to take into account new circumstances to ensure we meet the needs of Australia's equity capital markets. Quality remains the key.



Over the last 7 years, there has been a number of enhancements to the listings rules. I won't go through each of these, although, it is important to note that all of these changes involved:

- significant rule and policy development
- consultation papers
- feedback from stakeholders, and
- regulatory input and sign-off.

Importantly, since March 2016 when we put in place a new pre-vetting process, ASX has been able to exercise judgement and exert more control over the quality of listings that come to our market. As a result, ASX has rejected around 60 prospective floats for a range of reasons.

The process of strengthening our compliance framework – and with it market integrity and quality – is ongoing. Later this year we will consult on an extensive package of listing rules amendments dealing with a wide range of issues, including notification and approval of share issuances and related party transactions.

Maintaining high standards is core to ASX's brand and reputation. It is one of the most significant aspects of building strong foundations and ensuring the integrity of the marketplace. We are not alone in this. It is a responsibility shared by many in the regulatory environment, each of whom plays an important and distinctive role in bringing a company to market and ensuring it complies with its obligations as a public company.

ASX has the key role to play as the listings venue. We work within, and rely on, the significant governance framework that surrounds companies in general and listed companies in particular. We also benefit greatly from the vigilance of investors, market commentators, the media and other stakeholders in bringing to our attention possible departures from the listing rules so that we can take appropriate action. Stockbrokers and financial advisers also play an important part in this respect.



In conclusion, ASX is investing and concentrating effort to build stronger foundations:

- It is replacing core systems and improving processes
- It is working with stakeholders to develop new functionality to improve efficiency and reduce costs and complexity, and
- It is working with the industry to create a new generation of products and services.

It's also about keeping standards high and having a rule framework that promotes quality and integrity.

It's about setting us all up for success and investing in that future together. Success is not mutually exclusive.

We hope that our work to build stronger foundations sets you and your business up for prosperity in a new era of innovation.

Thank you