

Agenda

Business Committee

Date	8 April 2020	Time	12:00pm – 2:00pm
Location	ASX offices – Level 1, 20 Bridge Street, Sydney		
1. Service Performance	a) Cash Market Clearing and Settlement - Operating Performance This standing item has been extended to allow for discussion of the operational impacts of recent market volatility and changed working arrangements.		12:00pm-12:45pm
2. CHES Replacement Project	a) CHES Replacement <ul style="list-style-type: none"> – Application – Infrastructure and ledger – Integration and reporting – Rules and regulatory engagement – Stakeholder engagement – Transition, cutover and system accreditation b) Industry consultation on revised implementation timeline c) ISO 20022 Technical Committee report and minutes		12:45pm-1:45pm
3. Service Enhancements	a) Update on the Corporate Action STP Phase 2 project b) Digitisation of CHES statements (verbal update)		1:45pm-1:55pm
4. Administration	a) Minutes from the 27 November 2019 Business Committee Meeting b) Forward work program c) Other matters		1:55pm-2:00pm
5. Next Meeting – 1 July 2020			

Action Items

Item number#	Action	Due date	Status	Owner
2019 Sept (1)	Communicate with issuers on the proposed changes to corporate action forms and processes	Nov 2019	Completed	Karen Webb
2019 Sept (2)	Further information regarding how the market could use the optional DLT capabilities of the system	Nov 2019	Completed	Cliff Richards
2019 Sept (3)	Summary of the types of CHES replacement project risks ASX tracks	Nov 2019	Completed	Hamish Treleaven Cliff Richards
2019 Sept (4)	Implement changes to Business Committee processes (draft agenda and meeting action items)	Nov 2019	Completed	Gary Hobourn
2019 Sept (5)	Invite AMOs to attend the next meeting of the Implementation and Transition Working Group	Nov 2019	Completed	Keith Purdie
2019 Sept (6)	Circulate the annual Regulatory Expectations audit report and Management Accounts for the CS facilities	Nov 2019	Completed	Gary Hobourn
2019 Sept (7)	Organise a meeting with AMOs to discuss the issues raised during the PWC audit	Nov 2019	Completed	Karen Webb
2019 Sept (8)	Respond to industry feedback following release of ASX Clear GN10: Business Continuity & Disaster Recovery	Nov 2019	Completed	Hamish Treleaven
2019 Nov (1)	Provide members with the proposed times for the meeting dates in 2020.	Dec 2019	Completed	Gary Hobourn

Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO Clearing	Barry Parker	Chief Executive Officer	
AFMA	David Lynch	Chief Executive Officer	
ASX	Peter Hiom	Business Committee Chair, Deputy CEO	
AIRA	Ian Matheson	Chief Executive Officer	Ian Matheson
ACSA	Rob Brown	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
Automic	Astrid Raetze	Executive Director	
BAML	Rhys Cahill	Global Markets COO	
Bell Potter Securities	Rodd Kingham	Head of Operations - Transformation	
BNP Paribas	Mark Wootton	Head of Custody Product Aust & NZ	
Chi-X Australia	Mike Aikins	Chief Operating Officer	
Citi	Miles O'Connor	Director, Direct Custody & Clearing Securities & Funds Services	
CMC	Andrew Rogers	Director of Broking Business	
CBA (CommSec)	Sheridan Thompson	Head of Strategic Development	
Computershare	Scott Hudson	Head of Intermediary Services	
Credit Suisse	Winston Loke	Australia Equities COO	
Deutsche Bank AG	Geoffrey Plaisted	Chief Operating Officer, Equities	
Goldman Sachs	Yen Le	Executive Director	
GIA	Megan Motto	Chief Executive Officer	
HSBC	Nichole Alexander	Manager, Aust Market Advocacy & Development	
J.P. Morgan	Jonathan Evans	Head of Custody & Markets Operations	
Macquarie Group	James Indge	Cash Equities Business Manager	
Morgan Stanley	Rebecca Collins	Head of Operations, Institutional Equities	Rebecca Hill
Morgans	Peter Chisholm	Manager, Transactional Services & Settlement Systems	
NAB	Anita Mead	Head of Business Management, Self-Directed Wealth	
NSX	John Williams	Head of Admissions	Matthew Loughnan
Pershing Securities	Leigh Conder	Chief Operating Officer	
SAFAA	Judith Fox	Chief Executive Officer	
Sydney Stock Exchange	Antony Tolfts	Listings Director	
UBS	Conor Foley	Chief Operating Officer	

ASX Management

Name	Job Title	Apologies
Tim Hogben	Chief Operating Officer	
Daniel Moran	General Counsel	
Hamish Treleaven	Chief Risk Officer	
Cliff Richards	Executive General Manager, Equity Post Trade Services	
Dan Chesterman	Chief Information Officer	
Val Mathews	Executive General Manager, Operations	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Equity Post Trade Services	
Diane Lewis	Senior Manager, Regulatory and Public Policy	
Karen Webb	Senior Manager, Equity Post Trade Services	
Keith Purdie	Senior Manager, Equity Post Trade Services	
Andrew Jones	General Manager, Strategic Partnerships	
Giri Tenneti	Senior Manager, Issuer Services	
Con Korkofigas	Senior Legal Counsel	
Gary Hobourn	Senior Economic Analyst, Regulatory and Public Policy	

Observers

Name	Job Title	Apologies
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure, (ASIC)	

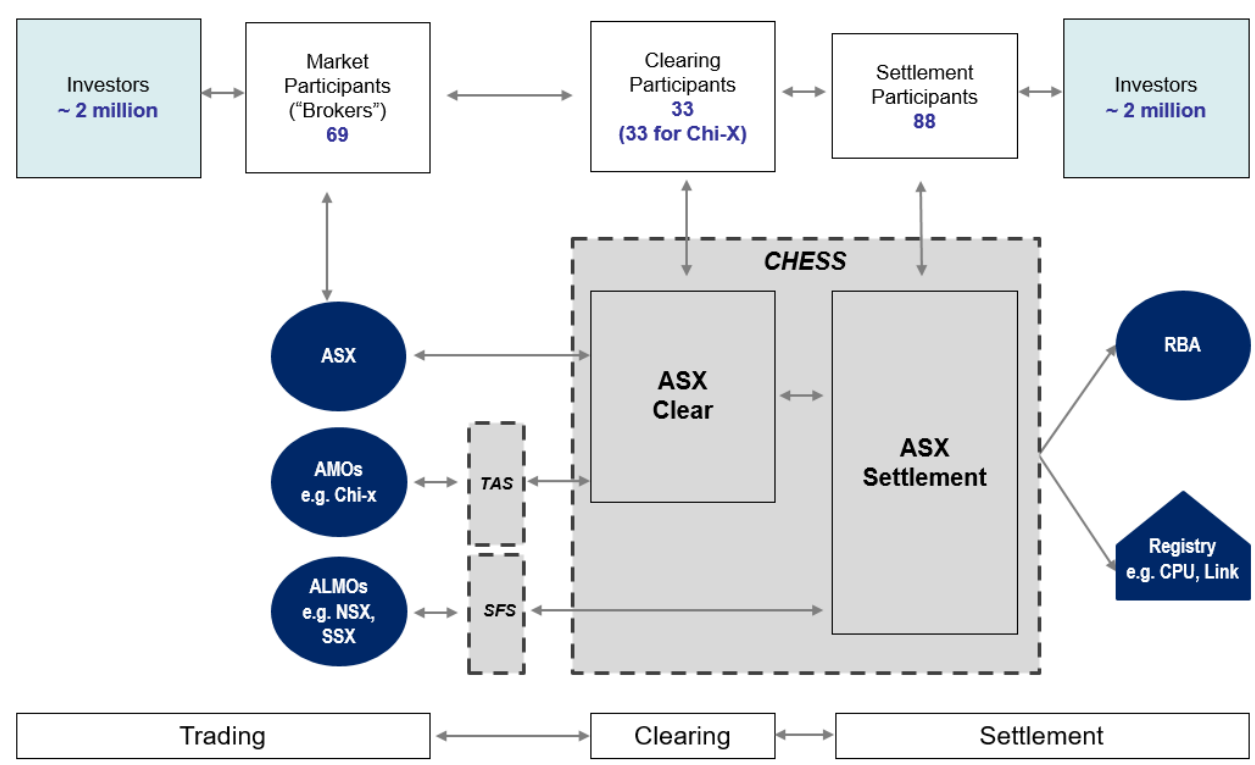
Invited

Name	Job Title	Apologies
David Raper	Executive General Manager, Trading Services (ASX)	

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 1	
Topic	Cash market clearing and settlement services - Operational performance
Date	8 April 2019
Purpose of this paper	To report on key performance metrics for ASX's clearing and settlement services.

OVERVIEW

Market Structure Overview



The clearing and settlement of equities performs a critical role in the operation of Australia's financial markets, helping to reduce counterparty and systemic risk, and provide transaction efficiency and certainty for end investors.

Core processes that provide these benefits include novation, netting and settlement.

Novation

Through a contractual process known as novation, ASX Clear becomes the seller to every buyer and the buyer to every seller, making it liable for completing all cleared transactions on the relevant market. Novation performs two important functions:

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- it replaces the clearing participants' credit exposures to other clearing participants by substituting the clearing house as the central counterparty; and
 - it maximises capital efficiency for clearing participants by permitting a single net exposure to be calculated and collateralised between the clearing house and each clearing participant.

Through novation, ASX Clear provides protection to non-defaulting clearing participants (and, indirectly, their clients) from the inability of a defaulting clearing participant to meet its obligations.

A key metric for monitoring novation is the percentage of on and off market trading that is novated.

Trades submitted for clearing and settlement by any market operator are verified prior to registration by ASX Clear. If the verification conditions are not satisfied then trades are rejected. Once a trade is registered it is novated. Novation is deemed to be effective from the matching of bid/offer (on market trades) or recording of the trade (reported trades) for all trade execution venues.

Netting

ASX Clear is approved as a 'netting market', and ASX Settlement is an 'approved netting arrangement', for the purposes of the Payment Systems and Netting Act. This gives legal certainty to the netting of settlement obligations. Settlement on a multilateral net basis maximises market efficiency by reducing participant transaction and funding costs.

A key metric for monitoring netting is the percentage by which novated value is netted down for settlement. This metric is termed "netting efficiency".

Settlement

ASX Settlement's model for settlement maximises efficiency, while minimising the risk of settlement failure. It does this by simultaneously transferring the legal ownership of shares and facilitating the transfer of money for those shares. This is done through a Model 3 multilateral net batch settlement mechanism with irrevocable settlement finality at the end of the processing cycle. The transfer of money occurs across the Exchange Settlement Accounts of payment providers in the RBA's Information and Transfer System (RITS).

A key metric for monitoring settlement is the percentage of scheduled settlement that successfully settles (i.e. the opposite of the "fail rate"). This metric is termed "settlement efficiency".

Service availability

ASX Clear and Settlement's critical processes of novation, netting and settlement and are supported in ASX's core system CHES. It is critical for market operations, that CHES remains stable and available for processing. A key metric for monitoring systems availability is the percentage of systems uptime as measured against target availability times. The service availability target for CHES is 99.80%.

This March 2020 quarter¹ reporting has been expanded to include up to 31 March given the increased trading volume and unique environment. The average monthly system availability was 100% for CHES. The average monthly availability of CHES has been 99.99% between November 2011 and March 2020.

In February, there were two extensions to CHES settlement batch commencement and one extension request to CHES End of Day. See March supplementary information for extensions during this month.

Trade Acceptance Service

ASX Clear and ASX Settlement's Trade Acceptance Service (TAS) provides a mechanism for Chi-X to submit trades into CHES. The CHES system performs the clearing and settlement functions.

The Trade Acceptance Service availability target for TAS is 99.80% (the same as CHES).

¹ Up to 31 March 2020

For the March 2020 quarter², the average monthly system availability was 100% for the TAS. The average monthly availability of the TAS has been 99.99% between November 2011 and March 2020 (which is the same as CHESSE).

Reporting on clearing and settlement service performance

The key metrics noted above on novation, netting efficiency and settlement efficiency for the March 2020 quarter³ are reported in Attachment A. They are also supported by charts demonstrating a longer reporting period in Attachment B.

Supplementary Information for month of March 2020

Overview

Through March the volume of trades received consistently hit record days on consecutive days within the month, in particular the record trading day on 13 March which saw trade count in the Australian market reach 7,005,491 trades (Chi-X 1,832,566 ASX: 5,172,925). This generated total settlement instructions within the 17 March CHESSE batch of 295,264, which is 218% higher than the twelve month average.

This impacted processing performance - with delays to dissemination of Trade Acceptance Messages (MT164), delays to start and finish of CHESSE EOD, and within Participant back office systems. Please refer to Attachment D – Market Notice 0232.20.03 for more detail.

Service and Availability

An increase in settlement failures was seen during March due to some of the back office processing delays, some trades from 13 March not being included in netting, and other industry-wide challenges with working remotely. These are demonstrated in Attachment C.

During March, CHESSE End of Day was extended on three occasions, one due to the unprecedented 13 March volumes and two due to requests from participants. There were also five participant extension requests to commencement of CHESSE settlement batch and two Fallback requests for a payment provider who was operating via remote access for BCP.

Processing improvements

Over the past few weeks ASX has prioritised a number of immediate upgrades to its post trade infrastructure. This has reduced pressure on critical path operational processes to be in a better position to manage current elevated trade volumes. CHESSE queues are significantly improved, with final backlog clearing by circa 4:30pm each day.

The clearing and settlement facility still incurs a risk to delayed end of day processes, particularly if multiple high-volume days are seen on consecutive days.

ASX is investigating other short, and medium term upgrades that would increase both the capacity and performance of ASX's post trade processing systems. These could involve more structural changes to our systems and would require significant planning and testing before implementation. Industry-wide coordination is also necessary to ensure that the overall capacity of the industry is considered.

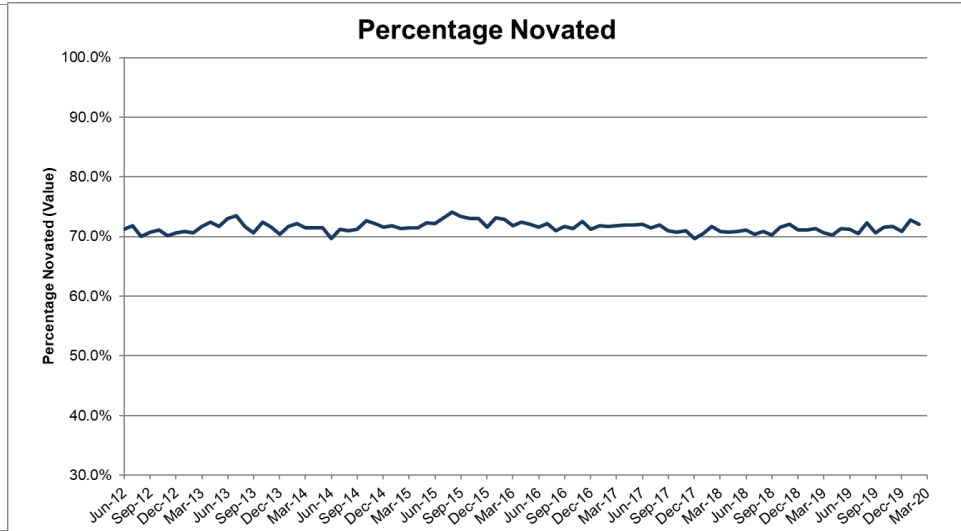
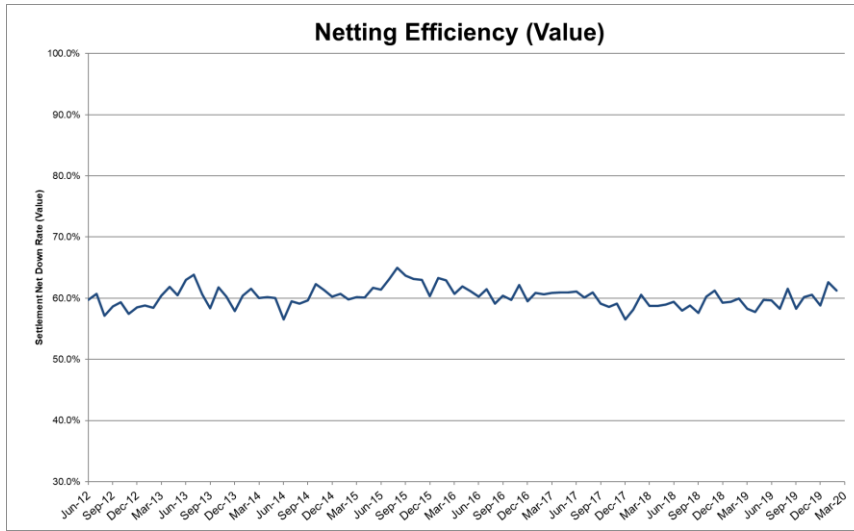
² Up to 31 March 2020

³ Up to 31 March 2020

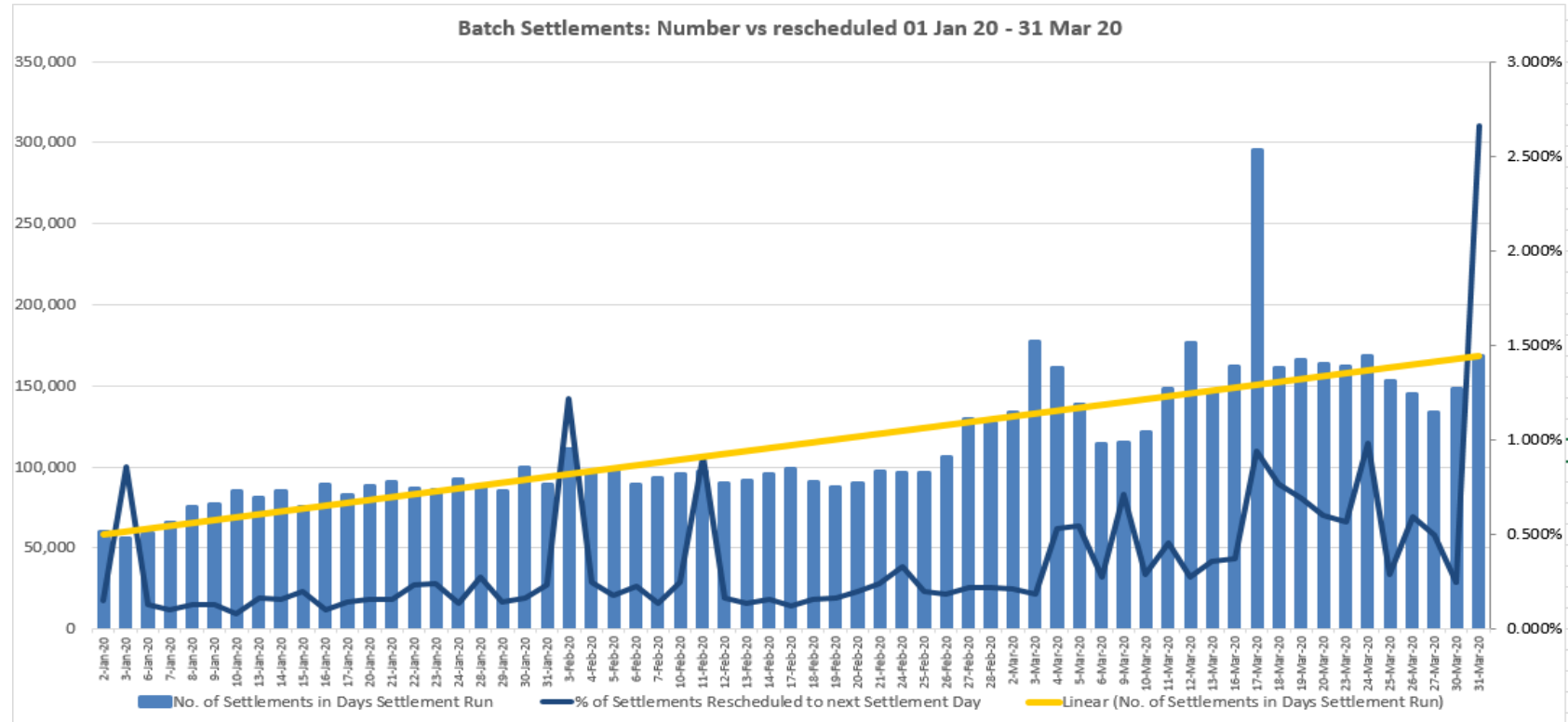
ATTACHMENT A – SUMMARY METRICS RELATING TO THE PERFORMANCE OF ASX’S CLEARING AND SETTLEMENT SERVICES

	March 2020 Quarter	December 2019 Quarter	September 2019 Quarter
System Availability (CHES)	100%	100%	100%
System Availability (TAS)	100%	100%	100%
Total Trades Accepted (ASX)	138,570,453	104,354,557	114,467,830
Total Trades Rejected (ASX)	0	2	0
Total Trades Accepted (Chi-X)	47,767,236	35,200,185	40,046,157
Total Trades Rejected (Chi-X)	11,468	0	0
Total Settlements (SSX)	0	0	0
Total Value of Settlements (SSX)	\$0	\$0	\$0
Total Settlements (NSX)	391	244	214
Total Value of Settlements (NSX)	\$6,192,783	\$429,289.04	\$390,361.45
Daily Average Traded Value (On and Off Market)	\$8.5 billion	\$7.2 billion	\$7.8 billion
Daily Average Cleared Value	\$5.9 billion	\$5.1 billion	\$5.5 billion
Percentage Novated	69.8%	71.35%	71.12%
Daily Average Cleared Value Post-Netting	\$2.63 billion	\$2.06 billion	\$2.25 billion
Netting Efficiency (Value)	56.2%	59.8%	59.4%
Netting Efficiency (Volume)	99.01%	99.02%	99.05%
Daily Average Settled Value (Including Non-Novated)	\$13.99 billion	\$10.5 billion	\$11.4 billion
Settlement Efficiency	99.88%	99.85%	99.94%

ATTACHMENT B – PERFORMANCE OF ASX'S CLEARING AND SETTLEMENT SERVICES FROM JUNE 2011 TO FEBRUARY 2020



ATTACHMENT C – BATCH SETTLEMENTS VS RESCHEDULED JAN-MARCH 2020



ATTACHMENT D – MARKET NOTICE 0232.20.03 Published 20 March 2020

The past couple of weeks have seen rapid and record volatility and volumes in the cash equity market. The whole industry has experienced operational challenges managing this – including ASX, other market operators and market participants.

These operational challenges were caused by unprecedented volume increases. This resulted in records being broken over multiple days, such that the record number of daily trades across ASX and Chi-X increased from 5,415,962 on 12 March 2020, to 7,005,491 on Friday 13 March 2020. The previous Friday, 6 March, was 3,242,386 trades. The strain this activity caused has been exacerbated by the challenges observed with organisations working remotely in response to COVID-19.

Notwithstanding this, the market continues to operate and we acknowledge that the whole industry has worked together to ensure it functions with resilience in these extraordinary times.

Capacity and performance

As a result of record trading volumes, ASX systems experienced delays in the dissemination rate of trade notification messages through CHESS (MT164) and Signal B over the past two weeks. These delays were largely related to data storage in CHESS.

ASX has also been managing a range of requests from Chi-X and participants for extensions to the EOD settlement, stock borrowing delays, slower payment provider authorisations and receipt of trade notifications. While these have all been accommodated, they have impacted on normal processing times.

Friday 13 March - CHESS settlement delays

On Friday 13 March, due to record volumes, there was an extended delay in the registering of trades in ASX's settlement system (CHESS). ASX undertook urgent and prudent maintenance on the CHESS database to improve performance and to enable the processing of these extraordinary volumes. This maintenance required a delay to the start of CHESS's end-of-day process.

An additional delay to the CHESS end-of-day process was caused by the issues experienced by Chi-X, where ASX did not receive approximately 119,000 trades until Sunday 15 March at 2:48pm. The end-of-day process was delayed for 5 hours on Saturday, while awaiting receipt of these trades. It was subsequently determined to commence CHESS end-of-day for Friday 13 March without these trades, taking into consideration the impact on customers.

Subsequently, CHESS end-of-day commenced at 6:03pm Saturday 14 March and completed at 5:37am Sunday 15 March. Normal processing would have seen this completed by 7:30am Saturday 14 March.

Current performance of CHESS

The performance adjustments made by ASX were successful, with the registration of ASX trades on Saturday 14 March and Chi-X trades on Sunday 15 March.

These improvements have seen a positive increase in throughput - in excess of 25% during the intraday trade notification process and in excess of two hours for the end-of-day processing time. The performance of CHESS this week is consistent with previous normal timings relevant to volumes.

The record trade volumes of Friday 13 March settled normally on Tuesday 17 March (T+2). This settlement activity took marginally longer than usual, due to the high volume of settlement transactions, which also included the non-netted Chi-X transactions as a result of the delay to receipt of these trades until Sunday evening. The batch settled 295,264 transactions compared to the daily average for the last 12 months of 95,725.

The current performance for trade notification dissemination (MT164) is normal and consistent with past performance. A point to note is that CHESS is required to lock units (hold processing trades) while portions of the daily settlement process (11:30am) are running. This ensures that sufficient units are available during the transfer from a customer's 'accumulation account' into their 'settlement account', and is designed to prevent unintended settlement fails.

Minor delays are regularly seen during daily batch settlement, where messages are intentionally paused during the batch each day and recommenced as soon as CHESSE completes settlement. ASX delivered an enhancement on 19 March 2020, which will reduce the time that messages are paused by approximately 20 to 25 minutes.

During the current volatile environment, additional delays are due to:

- Requests by market participants to delay the commencement of batch settlement
- Payment providers authorising their customer obligations
- Record number of settlement instructions (eg Tuesday 17 March settlement of trading from last Friday)
- Further record volumes.

Participants have advised us of the flow-on impacts from the volumes and delays, and to provide better visibility in future. Advance notification of any delays will be disseminated, as far as feasible, via System Status Page <https://www.asx.com.au/about/system-status.htm>.

Capacity and limits

Under its regulatory obligations, ASX has always maintained significant headroom in its operational systems to manage volatile times, and exceeds those obligations by having additional capacity well over twice the historic peak.

ASX supports the steps ASIC has announced to ensure stability and resilience across the industry. ASX can manage trade volumes above the limits that ASIC set this week.

ASX is continuing to invest in performance enhancements. Our environment is able to sustain the trade volumes experienced on Friday 13 March, were they to be repeated, through the incremental performance improvements already introduced and by the ongoing improvements to CHESSE and Signal B.

ASX will also continue to monitor closely and assess appropriate capacity uplift and performance improvements over the short, medium and long terms, while taking a measured and considered approach to maintaining whole-of-market availability.

What do I need to do by when?

For information only.

Need more information?

Issued by

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BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2A

Topic	CHES Replacement – Program Update
Date	8 April 2020
Purpose of this paper	Members will be provided with a program update including stakeholder engagement activities.

OVERVIEW

A CHES Replacement project market update was provided on 25 March which outlined that ASX would consult on a new implementation timetable. Further information on the announcement are detailed in a separate paper (see agenda item 2b for further details).

Several CHES replacement activities have recently completed. This includes the delivery of the sixth drop of code, CDE6, into the Customer Development Environment. The next tranche of technical documentation, which will complete the delivery of functional and messaging specifications, notwithstanding any further refinement or feedback from the Technical Committee meeting on 7 April, was published. The second tranche of rule changes have also been published in a consultation paper for public comment.

ASX is also continuing to work towards opening the ITE from July 2020 with a reduced payload consistent with the replanning that is underway.

Other stakeholder engagement activities have also continued, primarily the monthly Implementation & Transition working group with approximately 130 external attendees, and the Connectivity & Integration working group with approximately 80 external attendees.

Application Design, Build & Test

On 3 March 2020, ASX released the sixth drop of code into the Customer Development Environment (CDE 6). This was the largest release to-date and at its core it included further batch settlement capabilities including settlement fails algorithm, collateral management (ETO & CMM cover), primary market facility, payment facilities for RTGS and corporate actions (takeovers & buy-backs, reconstructions, rights issues, holding adjustments, schemes of arrangement, bonus capital return and dividend & interest payment).

Additional functional specifications and messaging requirements were also published on 2 April in Release 8, completing the full scope of technical documentation, notwithstanding accommodating a two week feedback window after the Technical Committee to be held on 7 April to close out outstanding matters on messaging for reporting as well as excess cash and margin instruction management.

Testing of CDE 6 code by CHES users continues across all three connectivity channels – Ledger API, SWIFT and AMQP.

Work has continued on the delivery of the CHES UI (browser), which can be used by stakeholders as an interface for the CHES Replacement application, only for low transaction value and volume users. An update on CHES UI, its features as well as a demonstration was provided to the Connectivity & Integration working group meeting held on 4 December.

The ISO 20022 work on ‘to-be’ message mapping state is in progress. See agenda item 2c for further details.

Infrastructure and Ledger

The integrated CHES replacement ledger and application are up and running on ASX’s infrastructure. Testing is ongoing in advance of opening up the infrastructure and ledger for optional software developers testing in ITE from July 2020.

Integration and Reporting

ASX continues to work on the integration scope for CDE 7 which involves the delivery of the Customer Identity Access Management (CIAM) functionality and Corporate Action STP Phase 2.

ASX is refactoring some of the CDE test tools to work in the ITE to assist software developer's test activity.

Rules & Regulatory Engagement

On Friday 21 February, ASX released a [consultation paper](#) inviting feedback from users and other stakeholders on the second of three tranches of operating rule amendments as well as an updated rule change development and consultation timeline.

The second tranche of operating rule amendments relate to corporate actions, mFund and RTGS payment aspects for 'Day 1' functionality. RTGS will support payments for corporate actions involving entitlement acceptances as well as payments for bilateral demand settlement instructions (addressed in the tranche 1 rule amendments). The consultation paper invites feedback from users and other stakeholders on the operation of the draft tranche 2 rule amendments, including any unintended consequences. The timeframe for providing written submissions, originally requested by 3 April 2020, has now been extended to end of May 2020.

Feedback on the first tranche of operating rule amendments closed on 17 January, after a 9 week consultation period. ASX is working to provide a response to consultation feedback received on the tranche 1 draft rule amendments in mid-April 2020.

Further to the press release on 25 March 2020, ASX has extended the tranche 2 consultation period (as noted above) and will announce the revised timetable for rules consultation once feedback has been received following the June consultation on the new CHES replacement implementation timetable.

Stakeholder Engagement

Implementation and Transition working group

Since October, ASX has hosted monthly implementation and transition working groups, via webinar. More recently, this has included the 29 January meeting which focused on activities for participants and share registries to manage inflight transactions over the migration cut-over weekend. A three week feedback window was provided. The limited feedback received was largely favourable and supportive.

On 26 February, the working group was dedicated to technical accreditation, covering both connectivity and messaging. This also included providing an update on the feedback received for in-flight transactions, and a call out on rules consultation. A similar three week feedback window was provided. Again, feedback was limited but included requests for clarification on technical aspects on message accreditation and the role of software vendors performing baseline performance testing for each connectivity channel for which they are seeking accreditation.

The next working group meeting, 1 April 2020, will focus on the announcement to consult with stakeholders on a replan.

All Implementation and Transition working group materials continue to be made available through the CHES replacement website, including an audio recording of the webinars. A copy of the last two presentations can be found here:

[Implementation & Transition working group presentation material - 29 January 2020](#)

[Implementation & Transition working group presentation material - 26 February 2020](#)

Connectivity and Integration Working Group

The most recent Connectivity & Integration working group was held on 19 February 2020. Updates were provided on CDE and connectivity. ASX also gave an overview of API Fact Contracts and provided a recap of ISO 20022 message signing based on documentation provided to the market at the end of January 2020.

The next working group meeting is expected to be held in mid-May and will include an update on CDE 7 that is scheduled for delivery into CDE at the end of May.

All Connectivity & Integration working group materials continue to be made available through the CHES replacement website. The presentation materials for the working group held on 19 February can be found here:

[Connectivity & Integration working group presentation material - 19 February 2020](#)

Focus Groups

The last scheduled focus group was held on 12 December 2019 on the topic of margin settlement and excess cash instructions. The focus group allowed ASX to present both the current process and the proposed solution, and to seek feedback to enable ASX to then finalise the proposed solution which is in scope to be delivered in May 2020, as part of CDE 7 code drop.

On 10 March 2020, an impromptu focus group meeting was held with payment providers as part of the Equity Settlement Payment Providers Sub-Committee (ESPPSC). This was as a result of feedback from the Technical Committee meeting on 25 February 2020, where members sought Payment Provider input on the use of two Funds Projection messages. The meeting also discussed ongoing engagement with payment providers since this was the last focus group meeting on solution design. Subsequently, ASX will host a separate session for the ESPPSC and/or appointed nominees which will include a presentation that summarises the end-to-end workflows discussed via ESPPSC Focus Groups during 2018/2019, key changes (or absence thereof) and any other specific considerations as they relate to Payment Providers.

A summary of the key themes raised through the Focus Groups, as well as ASX's response to feedback, will continue to be published when the associated technical documentation is released.

Issuer Engagement

ASX presented to GIA's Top 50 Policy Committee via teleconference on 11 March. Attendees included Company Secretaries from a range of listed companies. An invitation was also extended to share registries. The presentation included highlighting the tangible benefits of CHES replacement to issuers, DLT beyond CHES replacement, DLT benefits to issuers, electronic holding statements and an update on operating rule amendments. ASX also formally responded in writing to a list of questions that were provided the evening before the meeting. Next steps included bilateral meetings between ASX and Company Secretaries to facilitate more direct engagement in answering their questions and to aid understanding.

Transition, Cutover & Customer Readiness

As part of customer readiness, the first tranche of technical accreditation scripts for messaging will be made available in technical documentation release 8, on 2 April 2020, for account management related functions. The message accreditation scripts will identify the required test scenarios, by each relevant CHES user type for all account management related features. Messaging accreditation scripts will be progressively released each month. A timetable outlining the messaging accreditation script by function is expected to be released at the end of April.

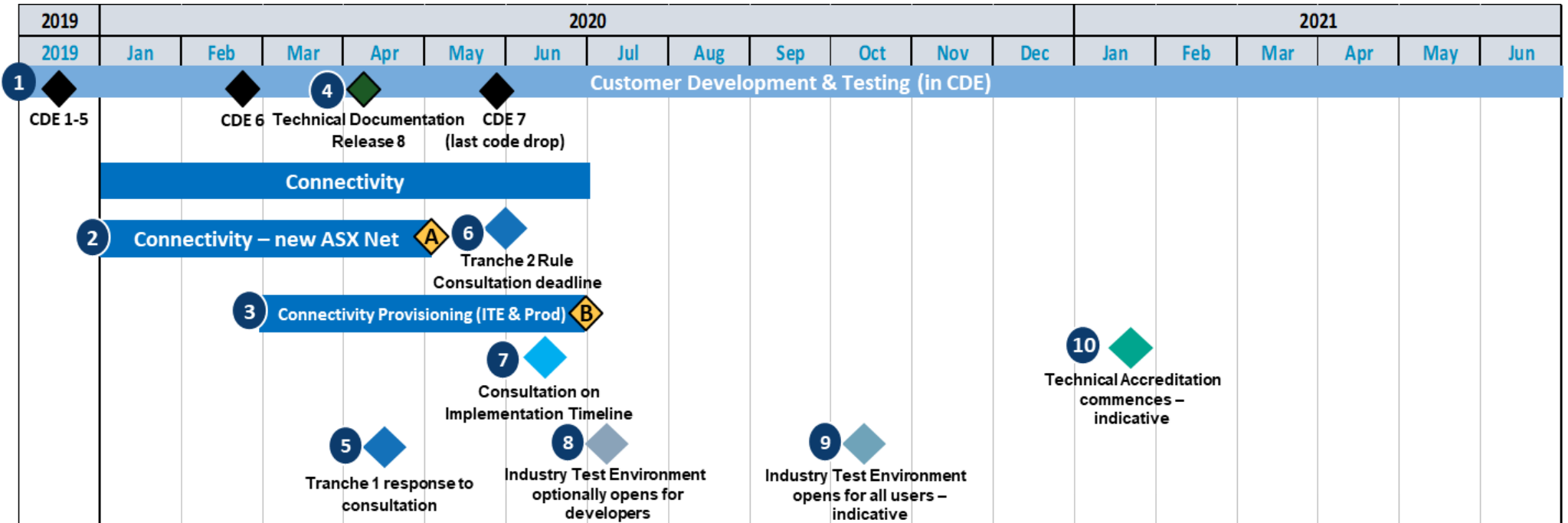
ITE order forms, for software developers' optional entry into ITE from July, will also be made available in technical documentation release 8 on 2 April 2020. This will also include the subscriber technical access

agreement. Further details on ITE will be provided in the April Implementation & Transition working group meeting.

ATTACHMENTS

Attachment A – CHESS Replacement project key milestones

ATTACHMENT A – CHES REPLACEMENT PROJECT KEY MILESTONES



1 Iterative customer development and testing for software vendors and in-house systems connected to CHES in a dedicated customer development environment

2 Submit order forms and install new ASX Net connections (if required)

A All new ASX Net installs to be completed

3 Provisioning of ASX Net & SWIFTNet connectivity to ITE

B All ASX Net and SWIFTNet connectivity in place for testing and migration dress rehearsals

4 Publication of technical documentation release 8

5 ASX's response to consultation feedback on tranche 1 operating rule amendments

6 Consultation on the second tranche of operating rule amendments closes

7 Consultation on the implementation timetable

8 ITE optionally opens exclusively for software developers

9 ITE optionally opens for all CHES users, subject to consultation

10 Technical accreditation indicatively scheduled to commence end January 2021, subject to consultation

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2B

Topic	CHES Replacement – Industry consultation on revised implementation timeline
Date	8 April 2020
Purpose of this paper	Members will be provided with an update on the June industry consultation regarding the timing of the implementation activities and milestones

OVERVIEW

ASX released a CHES Replacement announcement on 25 March which outlined a consultation on a revised implementation timetable. The revised implementation timeline will enable ASX to accommodate:

- Changes requested by users through the industry Focus groups;
- Changes arising from the ISO20022 Technical Committee;
- Some additional time for ASX to complete aspects of its own readiness;
- Some users expressing challenges meeting the original schedule; and,
- The impacts created by the COVID-19 pandemic and its management.

ASX is currently replanning the remainder of the project and monitoring the ongoing impact of COVID-19. ASX is also conscious that market participants are focused on their day to day operations and in many cases, operating with staff working from home. The consultation has therefore been scheduled for June – which will be specifically on the implementation timetable.

RATIONALE FOR IMPLEMENTATION TIMELINE CONSULTATION

Impacts of the industry consultation process on ASX internal development

The changes requested through industry Focus groups and the ISO 20022 Technical Committee have in aggregate delivered a greater amount of work than anticipated. These changes have driven change in requirements, requirement complexity, solution design and solution architecture choices.

While ASX has employed agile development practices, it has not been possible to contain the volume and complexity of change within its internal development schedules. Therefore, additional time is required to complete impacted work. The impact of this will be evident in the upcoming reduced functional payload of the seventh customer development environment (CDE7) release of the system. Subsequent releases will complete the outstanding features and details of these will be provided as a part of the new plan.

It should be noted that the majority of these changes (with the exception of registration details) have driven effort that is internal to ASX and does not compromise the externally facing technical specifications.

Industry users' views on time to complete their own development

Many industry vendors and participants have indicated that they were comfortable with their state of readiness and any significant delay to the implementation timeline would be problematic from budgeting and project portfolio (they have other projects scheduled around CHES Replacement) perspectives. A number of others have requested that ASX provide additional time to allow them to complete their development and/or readiness activities. Some have indicated that they would be ready (to transition to original implementation and go live plan) but advocated for a timetable extensions on behalf of others.

Impacts of the COVID-19 pandemic and related mitigation measures

The outbreak of COVID-19 has changed the operating landscape for all users including driving recent record volatility and volumes across markets. The impacts of the COVID-19 pandemic and related restrictions and mitigation measures on productivity are currently unclear. ASX will continue to monitor the evolving situation

and have scheduled the consultation for June to provide time for ASX and CHES users to assess the short, medium and long term impacts of COVID-19.

CONSULTATION ON IMPLEMENTATION SCHEDULE

ASX will consult with CHES users through a formal mechanism. The exact form of the consultation has yet to be determined. In determining the consultation format, ASX is mindful of the overhead that this places on users during this busy period, and the desire for a new schedule to be released so that users can re-plan their own activities as soon as possible.

Examples of the format of the consultation may include posing questions as to desired activity commencement and completion dates relative to the original implementation timetable. It may request specific supporting rationale to accompany the consultation responders preferred timetable dates. It may request a preferred go live date and allow ASX to plan back from that date. Consultation may be held as a series of interviews to ensure that the nuanced circumstances of each user is captured.

ASX will liaise with regulators on the finalised form of its consultation prior to announcement on the June consultation process.

Following the consultation, ASX will provide a response that will include a revised implementation and transition timetable. This will move the go-live date from April 2021 to a later date.

CONTINUING PLANNED ACTIVITIES

A number of existing planned activities are progressing and targeting their original plan dates. Most notably this includes ASX targeting the opening of the Industry Test Environment (ITE) in July 2020. ITE will be opened with a reduced functional payload. This reflects ASX development teams requiring additional time to complete aspects of the solution.

Initially access to ITE will be limited to system vendors and their software development teams until October 2020*. This includes third party back office vendors and those users who develop and maintain their own systems in-house. This will allow additional time to optionally develop and test their connectivity and their systems against ASX's production scale infrastructure.

Participant and others users who rely on a systems vendor solution will be able to 'enter' ITE to commence some industry wide testing (IWT) activities in October*.

Notwithstanding users will have some additional time as a result of schedule adjustments, CHES Replacement remains a high-priority project and ASX urges users to continue their readiness activities. ASX is very focused on ensuring that any delay to implementation is no longer than that required to accommodate legitimate user needs for additional time.

* Subject to any changes arising from consultation feedback.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 2C	
Topic	ISO 20022 Technical Committee Report and Minutes
Date	8 April 2020
Purpose of this paper	To provide Business Committee members with a copy of the report and minutes from recent meetings of the ISO 20022 Technical Committee

OVERVIEW

The ISO 20022 Technical Committee met on 10 December 2019, 28 January, 25 February and 7 April 2020. The Technical Committee's report for these meetings is provided in Attachment A.

The minutes from the meetings held on 1 November, 26 November, 10 December 2019, 28 January and 25 February 2020 are available on the CHES Replacement website.

1 November https://www.asx.com.au/documents/settlement/ISO20022_Technical_Committee_Meeting_1Nov2019_Minutes.pdf
2019

26 November https://www.asx.com.au/documents/settlement/ISO20022_Technical_Committee_Meeting_26Nov2019_Minutes.pdf
2019

10 December https://www.asx.com.au/documents/settlement/ISO20022_Technical_Committee_Meeting_10Dec2019_Minutes.pdf
2019

28 January https://www.asx.com.au/documents/settlement/ISO20022_Technical_Committee_Meeting_28Jan20_Minutes.pdf
2020

25 February https://www.asx.com.au/documents/settlement/ISO20022_Technical_Committee_Meeting_25Feb20_Minutes.pdf
2020

The Forward Work Plan for the ISO 20022 Technical Committee is provided in Attachment B.

ATTACHMENTS

Attachment A – ISO 20022 Technical Committee Report – 10 December 2019, 28 January, 25 February and 7 April 2020 meetings

Attachment B - Forward Work Plan for the ISO 20022 Technical Committee

ISO 2022 Technical Committee Report to the Business Committee

This report provides an overview of the ISO 2022 Technical Committee meetings held on 10 December, 28 January 2020 and 25 February 2020 (Sydney and via webinar), and the agenda for the 7 April 2020 meeting.

MEETING AGENDA (NON STANDARD ITEMS) – Business and Technical Matters for Consideration

10 DECEMBER 2019	28 JANUARY 2020
a) Review of member feedback on published 'to-be' messages	a) Focus Group update – Margin settlement and excess cash instruction
b) Corporate actions - entitlement	b) Review of member feedback on published 'to-be' messages
c) Investor details	c) Corporate action - refund
d) 'To-be' messages for review	d) mFund redemption
	e) 'To-be' messages for review
25 FEBRUARY 2020	7 APRIL 2020
a) Review of member feedback on published 'to-be' messages	a) Review of member feedback on published 'to-be' messages
b) Reporting	b) Reporting
c) Change of controlling participant notifications	c) Cancelled funds obligation (default management) and close out notification
d) Isolate counterparty	d) Holding administration lock
e) Account cancellation	e) DRP enquiry
f) Updates to account creation for migration purposes	f) 'To-be' messages for review
g) Payment provider – fund transfer	
h) Updates to BAH to include Business Date	
i) 'To-be' messages for review	

ACTION ITEMS

- Nine, two and three additional action items were raised at the 10 December, 28 January and 25 February meetings respectively.
- At the conclusion of the 25 February meeting, seven action items remain open, while 106 action items have been closed.



KEY ISSUES DISCUSSED

- At each meeting committee members were provided with a general update on the CHES Replacement project.
 - At the 10 December meeting the deferral from Day 1 scope of: mFund real-time cash settlement, 'hold' status and transfer capability; and mFund automation of regular payments and switching between funds was discussed, as well as mandatory v optional functionality and a likely delay to the first migration dress rehearsal date.
 - At the 28 January meeting an update was provided on the next drop of code (CDE6), recent stakeholder engagement forums, the CHES replacement project newsletter and tranche 1 of the operating rule amendments consultation.
 - At the 25 February meeting an additional release of technical documentation (post February 2020 release) was communicated.
- At the 10 December meeting committee members were provided with an update from the 27 November Business Committee meeting.
- At the 28 January meeting ASX provided an overview of **Margin settlement and excess cash instruction**, the topic of the final **Focus Group meeting**.
- At the 28 January meeting ASX highlighted key revisions to the proposed reporting solution, with the CUM entitlement balance generating particular discussion amongst share registries.
- ASX provided an overview of **key functional areas and associated message sets** at the meetings:
 - 10 December meeting:
 - **Corporate action entitlement election** solution design and message flows. This prompted discussion around the timing of lodgement and payment of applications, as well as the timing of the housekeeping message for a participant initiated election. Use of statuses instead of notification messages throughout the flow was discussed, as well as what functionality would be available whilst batch settlement was running, and the timing/participation of share registries in cancellations. Also discussed was the implications of ASX's proposal to elect via unity quantity or amount, and pagination/message file size constraints.
 - **Investor details** messages and flows.
 - 28 January meeting:
 - **Corporate action refunds** solution design, messages and flows. Discussion occurred around the relationship between notifications and payments, and the implications for payments if RITS is closed (including housekeeping of unapproved payment requests).
 - **mFund redemption** messages and flows, including batch settlement.
 - 25 February meeting:
 - **Projection reporting** proposed for de-scoping, which generated discussion around payment provider and settlement participants existing use/need.



- **Demand reporting** messages and flows (noting the full reporting flow would be presented at 7 April meeting), including pagination and discussion around inclusion of necessary data in reporting messages.
- Messages and flows for **change of controlling participant notifications, isolate counterparty and account cancellation**.
- **Updates to account creation for migration purposes** generated substantial discussion, and objections from a number of members that ASX's updates added development risk to the project.
- Progress mapping EIS messages to ISO messages (including descope messages) was 80% as at 10 December, 91% as at 28 January and 98% as at 25 February. The table below illustrates further progress to 100% as at end March.



The status of ISO 20022 messages published as part of Technical Documentation or additionally in draft with the Technical Committee is presented in the table below (as at end March 2020). ASX shares draft ISO 20022 messages with the Technical Committee for review ahead of release as finalised messages in Technical Documentation.

420 EIS in scope messages have been mapped to 104 ISO 20022 messages, effectively reducing the message suite by 75%.

As at end March 2020		Technical Documentation (8 releases)		Additional drafts provided to Technical Committee ahead of future Technical Documentation releases		Total messages published in Technical Documentation and provided to Technical Committee		Total CHES messages mapped (covering messages released in Technical Documentation, provided to the Technical Committee and to be descoped)	
ISO 20022 Business Area	Total # CHES "as-is" messages in scope	# CHES messages mapped	Equivalent # ISO 20022 messages finalised	# CHES messages mapped	Equivalent # ISO 20022 messages drafted	# CHES messages mapped	Equivalent # ISO 20022 messages	*# CHES message candidates for descoped	# CHES messages mapped incl. descoped
Account management (acct)	53	29	8			29	8	1	30
Operations Admin (admn)	11	2	2			2	2		2
Common (comm)	2	11	4			11	4		11
RTGS (gset)	60					0	0	60	60
Holding movement (hold)	37	86	24			86	24	1	87
mFund Service (mfnd)	85	20	8			20	8	43	63
Pledge and Lodge Management (pldg)	85	47	8			47	8	14	61
Reporting (rptg)	36	18	7			18	7	19	37
Settlement (sett)	51	42	35	2	1	44	36	1	45
Corporate Actions (evnt)		27	7			27	7		27
Total	420	282	103	2	1	284	104	139	423
% equivalent CHES "as-is" messages delivered		67.14%		0.48%		67.62%			100%



BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 3A

Topic	Corporate Actions STP Phase 2 project
Date	8 April 2020
Purpose of this paper	To provide Business Committee members with an update on progress of the Corporate Actions STP Phase 2 project.

UPDATE ON PROJECT PROGRESS

The project activities during the last four months have focused on successfully delivering the first release on 30 November 2019, an additional mini release (1.1) on 22 January 2020 and preparation for the second major release currently planned for June 2020, including the update to existing ISO 20022 corporate action notification messages and definition of additional messages.

Delivery timeline

The project delivery timeline may change, pending revised planning with the CHES Replacement project given the recent announcement concerning consultation on a revised implementation timetable, and consultation with customers regarding any impact on their own preparedness for future releases given the impact of COVID-19.

Indicative Timeline - Corporate Actions STP Phase 2	2018				2019				2020				2021	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Corporate Actions STP Phase 2 - Delivery period														
Listing Rule/other rule changes consultation / effective date														
Industry Working Group meetings (every 4-6 weeks)														
Customer Testing available														
Target Go-Live* (3 releases)														
CHES Replacement Go-Live														

*1st release dependent on effective date for Listing Rule changes

First release successfully implemented effective 1 December 2019 & communication to issuers

The scope for the first STP release remained unchanged, with a focus on changes for issuers and ASX systems to standardise and structure the announcement of certain events, and to facilitate the achievement of straight through processing. The release included:

- Updates to the Phase 1 event online forms for the announcement by issuers of dividend/distribution, interest payment, consolidation, split and cash return of capital events, including alignment with particular changes included in the listing rule changes, and updates to some features and validation changes for the benefit of issuers and ASX Operations;
- Availability of new forms to replace the current Appendix 3B, including the new Appendix 3B (notification of proposed issue of securities); Appendix 2A (application for quotation of securities); Appendix 3G (notification of issue, conversion or payment up of equities securities); and Appendix 4A (statement of CDIs on issue). These forms will initially be available in either online form or MS word format; and
- Associated changes to ASX database and system software, market announcement report classifications, and PDF announcement styling.

The associated listing rule changes received regulatory approval on 22 November 2019, with an effective date of 1 December 2019.

Issuers were informed of the effective date for the rule changes and the STP release via a Listed@ASX Compliance update published on 28 November 2019, including the transition arrangements for the new Appendices. The asx.com.au and ASX Online for Companies websites were updated on the release weekend with various material including the latest rule documents, training material and the online form changes.

Since the first release ASX has received feedback from a number of issuers regarding usage of the new Appendices and online form functionality. This feedback has been reviewed by ASX with the agreed changes introduced in two tranches – those with low build impact but considered high priority were delivered in the January 2020 mini release, the remainder will be delivered in the second major release.

Scope for subsequent releases

Given the project has currently scheduled at least two subsequent releases during 2020, the project team has been working to identify priority items for the next release (second major release). The priorities are based on the current CHES Replacement project schedule & requirements, and feedback from the industry working group and other stakeholders.

Priorities for second major release:

- Provide a full suite of ISO 20022 event notifications to satisfy the CHES Replacement project test schedule and provide the earliest possible enhancements to benefit subscribers to the ISO 20022 notification service:
 - Availability of industry wide testing in March 2020 for the ISO 20022 corporate action notification service, including all in scope corporate action event types, and production service in place by mid-2020;
 - Enhance the Dividend/Distribution online form and ISO 20022 notification changes to include additional tax information.

Subsequent priorities:

- Ensure issuers have a complete suite of forms to replace all scenarios covered by the previous Appendix 3B word form; and ensure all asset classes are included in the STP solution where possible. This also facilitates the straight through processing of the data included in such announcements to benefit ASX Operations and to support the timeliness of the ISO 20022 and other notification services:
 - Full straight through processing capability (STP) for new Appendix 3B (including auto creation of the covered corporate action events – bonus, renounceable, non-renounceable, accelerated, security purchase plan);
 - Availability of online forms with full STP for Appendix 2A and Appendix 3G;
 - Investigate potential additional form – for issuer notification of cancelled/expired securities; and
 - Investigate changes for ETF and structured product issuers and their events, including announcement and rule changes to standardise the events where possible, and process to manage exceptions. This piece of work is expected to be longer term, given rule changes may be required.

ISO 20022 corporate action notification service

The updated and new ISO 20022 corporate action notification messages are targeted for release in June 2020, pending any replanning.

Following continued review by the project team, member feedback via MyStandards and the working group, twenty four finalised usage guidelines were published in SWIFT MyStandards on 6 March for the information of members of the industry working group. Members have also been provided with progressive updates to

the ReferencePoint ISO 20022 Real Time Corporate Actions Manual incorporating key changes for the published message set.

The dedicated SWIFT test environment for the new and updated messages is in place, with an initial test for one subscriber. It is now available for any user wishing to access the test environment. ASX will provide samples to subscribers for predetermined production like events.

Stakeholder engagement

The latest industry working group meeting was held on 6 February 2020. The meeting discussed details of delivered releases 1 and 1.1. Additionally, the meeting focused on the ISO 20022 service and a presentation from ASX regarding the latest changes made to the event notifications, and questions for working group members to confirm their agreement with ASX's approach on a number of matters. The input from members was very constructive. ASX has also concluded its consultation with the sub-group regarding additional distribution tax information and is now working on enhancements to the dividend online form and associated ISO 20022 notifications ready for the second release.

The ASX Chief Compliance Officer and project owner also attended a GIA hosted meeting on 4 March 2020 with issuer representatives for a constructive discussion regarding the recent listing rule changes and online forms.

ASX will continue to consult the working group on future deliverables and the implementation timeline.

BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 4A	
Topic	Minutes from 27 November 2019 Business Committee Meeting
Date	8 April 2020
Purpose of this paper	To provide Business Committee members with the minutes and Business Committee report to the ASX Boards from the 27 November 2019 meeting.

OVERVIEW

Draft minutes and the draft report to the Boards of ASX Clear and ASX Settlement from the 27 November 2019 Business Committee meeting were emailed to all members of the Business Committee on 20 December 2019 for comment. The Secretariat received one comment from a member and a change to the initial draft circulated to members is marked-up.

The Business Committee report and minutes will be formally presented to the next meeting of the ASX Clear and ASX Settlement Boards.

ATTACHMENTS

Attachment A – Business Committee Report and Minutes from the 27 November 2019 Meeting.

Business Committee Report to the Boards of ASX Clear and ASX Settlement

Business Committee Meeting

At its 27 November 2019 meeting, the Business Committee was updated on the:

- operating performance of CHES for October 2019;
- CHES replacement, Corporate Action STP Phase 2, and CHES e-statement projects;
- ISO 20022 Technical Committee's progress in developing the new message standards;
- progress with the change to the process for transfers from the issuer to the CHES sub-register; and
- response to industry feedback on ASX's guidance on clearing participants' business continuity and disaster recovery.

KEY ISSUES DISCUSSED

The Committee was advised that two measures: the first stage of changes under the Corporate Action STP Phase 2 project and the removal of documentation requirements for transfers to the CHES sub-register for some settlement participants would become effective in December 2019.

Members were briefed on progress with the CHES replacement project, particularly the recent release, for consultation, of the first tranche of rule changes. There were questions on the approach taken to consulting on the rule changes, including the period allowed for consultation. ASX noted the extended nine week consultation period and the extensive material provided with the rule package to assist users in understanding the rule changes.

There was discussion of the criteria being used to determine which new features available on day 1 will be mandatory for participants from go-live and which will not become mandatory until December 2021. Further information will be made available at an upcoming webinar.

There was also discussion of the industry-wide testing environment and questions about how testing could occur, particularly when users will be at different stages of readiness. It was confirmed that all users would not be required to have their systems tested and accredited as well as having attested to their operational readiness until the first migration rehearsal currently scheduled for October/November 2020. Until then ASX will be assisting participants, where necessary, with their testing including of bilateral flows where ASX will put in place tools that mean a user is not reliant on another user's readiness.

There were presentations, requested at the last meeting, on the approach to risk management for the CHES replacement project and the benefits that DLT could provide (beyond clearing and settlement) in shaping the future structure of the equity market and other sectors. ASX explained that it would operate a common infrastructure upon which third-party providers could develop application designed to remove existing process inefficiencies.

Agreed Actions

All action items raised at the last meeting have been completed, either prior to the meeting or during the course of the November meeting.

ASX committed to the following actions at the November meeting:

1. Provide members with the proposed times for the meeting dates in 2020.

Minutes from the meeting are attached.

Minutes

Business Committee Meeting

27 November 2019

4:00pm – 5:30pm

ASX Offices – Level 1, 20 Bridge Street, Sydney

1. Service Performance

- a) Cash Market Clearing and Settlement - Operating Performance

2. CHES Replacement Project

- a) CHES Replacement
 - Application
 - Infrastructure and ledger
 - Integration and reporting
 - Rules and regulatory engagement
 - Stakeholder engagement
 - Transition, cutover and system accreditation
- b) ISO 20022 Technical Committee report and minutes

3. Service Enhancements

- a) Update on the Corporate Action STP Phase 2 project
- b) Digitisation of CHES statements (verbal update)
- c) Transfers to the CHES Sub-Register (verbal update)

4. Administration

- a) Minutes from the 19 September 2019 Business Committee Meeting
- b) Forward work program
- c) Other matters

5. Next Meeting – 1 April 2020

Business Committee Members

Company	Name	Job Title	Apologies
ABN AMRO Clearing	Matt McMahon*	Head of Operations	Barry Parker
AFMA	David Lynch	Chief Executive Officer	
ASX	Peter Hiom	Business Committee Chair, Deputy CEO	
AIRA	Ian Matheson	Chief Executive Officer	
ACSA	Rob Brown	Chief Executive Officer	
ASA	Fiona Balzer	Policy & Advocacy Manager	
Automic	Astrid Raetze	Executive Director	
BAML	Rhys Cahill	Global Markets COO	
Bell Potter Securities	Rodd Kingham	Head of Operations - Transformation	
BNP Paribas	Mark Wootton	Head of Custody Product Aust & NZ	
Chi-X Australia	Mike Aikins	Chief Operating Officer	
Citi	Miles O'Connor	Director, Direct Custody & Clearing Securities & Funds Services	
CMC	Andrew Rogers	Director of Broking Business	
CBA (CommSec)	Sheridan Thompson	Head of Strategic Development	
Computershare	Greg Dooley	Managing Director	
Credit Suisse	Winston Loke	Australia Equities COO	
Deutsche Bank AG	Geoffrey Plaisted	Chief Operating Officer, Equities	
Goldman Sachs	Yen Le	Executive Director	Yen Le
GIA	Catherine Maxwell*	General Manager, Policy and Advocacy	Megan Motto
HSBC	Nichole Alexander	Manager, Aust Market Advocacy & Development	
J.P. Morgan	Jonathan Evans	Head of Custody & Markets Operations	
Macquarie Group	James Indge	Cash Equities Business Manager	
Morgan Stanley	Rebecca Hill	Chief Operating Officer	
Morgans	Daniel Spokes*	Assoc Director, Clearing & Settlement Manager	Peter Chisholm
NAB	Anita Mead	Head Business Management, Self-Directed Wealth	Anita Mead
NSX	John Williams*	Head of Admissions	Matthew Loughnan
Pershing Securities	Leigh Conder	Chief Operating Officer	
SAFAA	Judith Fox	Chief Executive Officer	
Sydney Stock Exchange	Antony Tolfts	Listings Director	
UBS	Conor Foley	Chief Operating Officer	

* Delegate

ASX Management

Name	Job Title	Apologies
Tim Hogben	Chief Operating Officer	
Daniel Moran	General Counsel	
Hamish Treleaven	Chief Risk Officer	
Cliff Richards	Executive General Manager, Equity Post Trade Services	
Dan Chesterman	Chief Information Officer	
Val Mathews	Executive General Manager, Operations	
Sally Palmer	Deputy General Counsel	
Katie McDermott	General Manager, Equity Post Trade Services	
Diane Lewis	Senior Manager, Regulatory and Public Policy	
Karen Webb	Senior Manager, Equity Post Trade Services	
Keith Purdie	Senior Manager, Equity Post Trade Services	
Andrew Jones	General Manager, Strategic Partnerships	
Giri Tenneti	Senior Manager, Issuer Services	
Con Korkofigas	Senior Manager and Senior Legal Counsel	
Gary Hobourn	Senior Economic Analyst, Regulatory and Public Policy	

Observers

Name	Job Title	Apologies
Nathan Bourne	Senior Executive Leader, Market Infrastructure (ASIC)	
Dodie Green	Senior Manager, Market Infrastructure, (ASIC)	

INTRODUCTION

The Chair welcomed members and delegates to the final meeting of the year.

There were apologies from Astrid Raetze (Automic), Mark Wootton (BNP Paribas), Leigh Conder (Pershing Securities), Yen Le (Goldman Sachs), Rebecca Hill (Morgan Stanley) and Anita Mead (NAB). Four other members were represented by delegates: Matt McMahon (ABN-AMRO); John Williams (NSX); Daniel Spoke (Morgans); and Catherine Maxwell (GIA). ASIC (Nathan Bourne, Dodie Green) attended the meeting as observers.

The Chair noted that Nichole Alexander has replaced Peter Snodgrass as the HSBC representative and acknowledged the contribution that Peter had made to the Business Committee and through the CHES replacement project.

The Chair noted the status of the eight action items that came out of the September meeting:

- three had been completed prior to the meeting;
- four will be covered at this meeting; and
- the Chair proposed closing the other item and members raised no objection. An invitation had been sent to the AMOs to further discuss an issue that an AMO raised during the PwC audit but there had been no request for a further discussion. ASX remained available to do that if it was required.

The Chair also noted that, since the draft agenda was circulated, an additional agenda item on transfers to the CHES sub-register was included at the request of Rob Brown from ACSA.

AGENDA ITEM 1: SERVICE PERFORMANCE

There was 100% system availability for both CHES and the TAS during October.

The majority of activity metrics were broadly consistent with previous periods, including settlement efficiency (99.85%) and the percentage of novated transactions (71% of trades). However, average value traded, cleared and settled were all slightly below normal levels, largely reflecting a NSW public holiday.

The fail rate was slightly higher than recent months (0.392%) although it was consistent with the same period last year. The increase in October reflects the larger number of corporate actions that are processed in that month.

There were no questions from members on the performance report.

AGENDA ITEM 2: CHES REPLACEMENT PROJECT

a) CHES Replacement

ASX updated the Committee on the status of each of the CHES replacement workstreams.

Application design and build

- Release notes related to CDE4 functionality were published in early November, including functionality for two new stakeholder groups; AMOs and payment providers.
- There are now over 30 users in various stages of connecting to and using CDE to test and interact with the application. Further technical documentation will be released by end-November and in February 2020.
- Members were asked if they had any feedback they wanted to share or questions regarding their experience with CDE or the technical documentation. There were no questions or feedback.

Rules and regulatory engagement

- The consultation paper for the first of three tranches of rule amendments was released on 15 November and covered accounts, participants, securities and pre-settlement aspects for day one of the new system.
- The extensive rule package materials sought to provide as much information as possible to assist users to understand and navigate the rule changes. It included a summary of the rule amendments, the purpose of the amendment, a mark-up of the rule amendments across the three affected rule books, and an index.
- The rule consultation focuses on the operation of the rule amendments, including identifying any unintended consequences.

- Consultation feedback has been requested by 17 January 2020.

A member asked if any thought had been given to consulting on the rule amendments in one large package rather than the three tranches and if there would be an ability to revisit tranche one rules, if necessary, in the light of any comments on subsequent tranches.

ASX responded that the choice of three tranches had been selected to provide the information in a series of packages so users can start digesting it in manageable blocks. The first tranche represented a set of building blocks for the new system and was therefore prioritised to get early feedback.

The intention is that where changes to rule amendments in a later tranche (in response to market feedback) affect rules in an earlier tranche, such impact could be further considered through the consultation process for that later tranche and reflected in the final set of rules.

A member asked about whether requesting comments by mid-January for the first tranche of rules was achievable. The issues around the timing of the consultation were acknowledged and ASX had extended the normal consultation period by three weeks (to reflect the Christmas break). In addition, the explanatory information in the package was included to assist users.

Mandatory and optional features

Members were provided with an overview of the approach ASX is taking to determining what features will be mandatory or optional (ie. CHES users do not need to be operational) for the purpose of technical accreditation and operational readiness for Day 1.

The criteria for considering whether a feature would be mandatory for day one include whether it:

- is required to support the proper functioning of the replacement system for day one;
- would strengthen ASX Clear's or ASX Settlement's risk management capability (i.e. reducing systemic risk and/or enhancing client protection);
- requires broad market adoption for the replacement system to benefit issuers and investors; or
- requires broad market adoption for the replacement system to provide operational efficiencies to the market.

Those features that are required to support the proper functioning of the replacement system for day one will be mandatory from the go live date. For features that meet one of the other three criteria, they will be optional for go live but will be mandatory from 31 December 2021. This phased approach will de-risk the delivery of the system for the go live date. Features that do not fall within any of the criteria will be considered optional.

A member noted that the list of mandatory and optional features had originally been expected to be provided by the end of September and asked when it would be made available. ASX responded that the list of mandatory and optional new features would be available at the next implementation and transition working group webinar later that week.

Stakeholder engagement

ASX updated the Committee on stakeholder engagement activities since the last Business Committee meeting.

The implementation and transition working group webinar at the end of October covered the network connectivity users must have in place prior to the commencement of industry-wide testing (IWT) and the migration dress rehearsals. There was a breakdown of the three separate activities covered in the IWT environment: system testing; technical accreditation; and operational readiness.

System testing is optional between 1 July and the end of August, but users must start their system testing by no later than 1 September. There was discussion of what CHES users need to do for technical accreditation, covering both connectivity and messaging as well as a discussion of the purpose of the three currently planned migration dress rehearsals.

Following the webinar, which was attended by approximately 200 external participants, ASX provided three weeks for users to provide feedback on the plan. Nine organisations provided written feedback, largely asking for points of clarification or seeking more information. There was no real objection to the overarching approach to the transition and cutover plan, albeit members are looking for more detailed information.

The concern expressed in a couple of responses was the timeframe between the delivery of last drop of code (CDE7) at the end of May 2020 and the beginning of system testing from July 2020. In response, ASX has adjusted the period where participants need to be testing in the IWT environment back to September 2020 (it is optional from July).

Technical accreditation runs from 1 July to 31 October 2020. All systems have to be technically accredited prior to the second dress rehearsal, currently targeted for 21-22 November 2020.

ASX is considering an alternative date for the first migration dress rehearsal after the initial choice now clashes with the AFL Grand Final. In reconsidering that date, ASX will also examine ways it can further relieve some of the pressure on users during a period of high activity.

The new migration dress rehearsal dates should be available in time for in the working group meeting in mid-December 2019.

Members asked questions about the nature of industry-wide testing, seeking clarity on when the whole industry needs to be operationally ready and how testing would work when users were at different stages of readiness.

ASX noted that its use of the term 'industry-wide testing' includes several different phases. The first phase is when participants and/or vendors can test their own systems. In other phases users can have their systems technically accredited and then there is a period for attestations of operational readiness.

The orchestrated events requiring full industry participation (and operational readiness) are the migrated dress rehearsals. ASX will be helping CHES users with how they actually test throughout the IWT period and how to conduct end-to-end processes including bilateral processes with other parties.

ASX anticipates different firms will be at different phases of readiness during these testing periods and that's why there are overlapping periods of system testing, technical accreditation and operational readiness prior to the first dress rehearsal targeted for October/November 2020. At the close of the system accreditation period all users need to be operating on an accredited system.

ASX will be working with every organisation to get an understanding of the types of tests they'll be performing, because not every participant is going to test the same things as some firms don't use certain functions.

Through the implementation and transition working group, ASX will be working with stakeholders in order to help facilitate testing amongst different stakeholders, as well as providing auto-responder tools that allow individual parties to test bilateral flows in the IWT environment without having a dependency on another, non-ASX, party.

ASX will be closely monitoring the stages of readiness of all users and will work with them directly if they seem to be falling behind.

A member noted the concerns of some vendors about the tight timeframe between the last release of code (for CDE 7) and the commencement of IWT. ASX is conscious of the risks and is putting in place processes to manage them in a robust and structured manner. It was noted that while some users have expressed concerns about the tightness of timing others have indicated that they have their resourcing and budgeting in place to meet the planned go live date and would be concerned with any slippage.

ASX advised that more information would be provided at the next working group webinar on a number of matters users have expressed great interest in.

- The process of moving to the new global standards for client registration details over the cutover weekend.
- The process for the restructuring of holder IDs into two distinct records including a unique ID for managing system workflows and processing.
- The treatment of in-flight transactions, including corporate actions, over the cutover weekend.
- The approach to minimise the number of transactions or accounts that need to be migrated, including the treatment of dormant HINs.
- Questions on the process of technical accreditation and operational readiness. More detail should be available for the working group meeting in the first quarter of 2020.

A member asked about the process for cancelling dormant HINs so that they don't need to be migrated and another asked if there would be fee relief associated with this process. ASX is currently working with the market to identify what constitutes a dormant HIN (taking into account criteria like zero holdings; if the holder is contactable; etc) and the process that participants can go through to be able to cancel those HINs. For the bulk cancellation process, which will be subject to participant attestation that they have followed the process, there will be fee relief. The relief would not apply to normal cancellations via messaging.

The last connectivity and integration working group meeting will be held next week including a functional update on the web browser. Further meetings will be convened next year if stakeholders' identify other issues that require more discussion.

There have been 25 focus group meetings over the past 13 months ago, about double the initial plan.

On issuer engagement, a presentation on CHES Replacement was included as part of a national roadshow on the recent listing rule changes. This reached an audience of over 1000 Company Secretaries, IR professionals and legal advisers. This was supplemented with a number of bilateral engagements with issuers and their representatives.

Project risk management

Following on from the request at the last Business Committee meeting, the ASX Chief Risk Officer provided an overview of its general approach to risk management and some sense of how it is being applied to the CHES Replacement project.

The framework governing ASX's approach to risk management starts with a Board approved risk appetite statement that includes a very low tolerance for any risk that threatens the availability of ASX's critical infrastructure. The three lines of defence risk management framework is used to identify ownership of risks and setting out individual roles and responsibilities to ensure accountability. The project risk management methodology ASX uses identifies and measures risks and designs controls to deliver acceptable risk outcomes.

The Executive General Manager, Equity Post Trade Services then explained the risk management approach within the CHES replacement project and how the risks and issues related to each of the six work streams are monitored. There is an executive steering committee comprising a significant portion of the senior ASX leadership team that discusses risks and issues that emerge. There are regular reports to the Clearing and Settlement Boards and ASX meets regularly with its regulatory agencies to discuss risk issues.

ASX has a risk register which can include input from anyone involved in the project (the project team, third parties, consultants, contactors and other service providers). It also captures risks and issues identified by users which are raised in any of the various stakeholder engagement forums or in bilateral discussions. The risks identified are assigned a likelihood and an estimated impact to calculate an inherent risk rating of high, medium and low. The status of that risk and the proposed mitigant is identified and monitored.

A member asked if ASX would share a cut down version of its risk register. ASX noted that it would not publicly share its risk register, but noted that the risk register and controls are provided to regulators and is subject to periodic review, including by both internal and external auditors.

The potential benefits of DLT and its impact on the market and other sectors.

An action item from the last Business Committee meeting was for ASX to provide a picture of what the future impact of DLT may be. ASX provided a presentation on the potential benefits DLT infrastructure can provide beyond that directly related to the CHES replacement project.

At a conceptual level the new clearing and settlement system is made up of two components: a DLT-based infrastructure and a software application (written in the Digital Asset Modelling Language (DAML)) that sits on it and will provide clearing and settlement services.

DAML is open-source code that anyone can download, including a software development kit that assists firms wanting to write their own applications.

A number of organisations are already in discussions with parties, including Digital Asset and ASX, about the potential services they may develop through taking a node connection to the ledger.

The infrastructure is capable of hosting multiple applications including those that could be complementary services in the cash equities market based on information in CHESSE or the CHESSE sub-register, or those that are unrelated to clearing and settlement or even equity markets. There are potentially other use cases that could provide services to other parts of the capital market (e.g. fixed income) or non-financial market uses where a distributed ledger or block chain with an immutable audit trail could be beneficial.

While ASX will provide access to the DLT infrastructure, the vast majority of applications that could be hosted on it would be developed by third parties that identify problems or inefficiencies that a DLT-based solution could address. As such, future uses of the technology will be driven by the decisions of third parties.

There are a range of potential services that could be developed to improve the efficiency of a number of processes. These could include, for example, automating regulatory reporting, corporate actions, beneficial ownership tracing notices, KYC compliance, etc. While third-parties can develop an API to provide services in these areas, if the service is dependent on access to CHESSE related data this would be governed by the same rights and obligations set out in existing rules and laws. The consent of the issuer or individual would be required to access their data.

A member asked if any third-party provider could write an application and if it would need to be accredited by ASX. It was confirmed that any provider could write applications, subject to some hygiene tests being run on the code to ensure there was no malicious code. It was explained that this service would be operated and governed separately from ASX Clearing and ASX Settlement.

A member asked if ASX is planning to write any of these apps. ASX indicated it is writing the CHESSE replacement application and doesn't have any other active projects at the moment. ASX might consider Austraclear or some other smaller applications in the future, but is also encouraging others to consider the applications they may want to build

b) ISO 20022 Technical Committee Report and Minutes

The Technical Committee met a couple of times since the last Business Committee meeting.

About 74% of the in-scope as is CHESSE message base has been translated into an ISO 20022 standard. By February 2020, the work should be complete. This would be a great outcome relative to the time taken in other jurisdictions for less ambitious projects.

The Committee has met around 30 times to date with over 100 members dialling in across about 35 organisations. A total of 93 action items have been completed to date with three currently outstanding.

There were no questions on the ISO 20022 Technical Committee report.

AGENDA ITEM 3: SERVICE ENHANCEMENTS

a) Update on the Corporate Action STP Phase 2 project

ASX reported that regulatory approval has now been received for the entire listing rule package, including the first release of the Corporate Actions STP changes which will be effective from 1 December.

Transition arrangements mean that issuers, if they choose, can continue to use the old form Appendix 3B for two months (to end January 2020) before it becomes mandatory to move to the new suite of forms replacing the current Appendix 3B.

Since the last Business Committee meeting the focus has been on finalising the requirements and then on testing and release preparation. There has also been work on the development of the ISO 20022 specifications for all the corporate action event notifications that will form part of the next release in 2020.

ASX is currently prioritising a number of items for the next release, including feedback from users. One particular priority is the ISO 20022 corporate action event message suite which is an important input to CHESSE replacement.

ASX will publish (for review) the last two ISO 20022 specifications this week for the suite of corporate action events, making it a total of 24 specifications in total.

Communication of the listing rule changes

At the last Business Committee meeting there was an agreed action item for ASX to update the next meeting on the communication program undertaken with issuers on the changes.

ASX published the final marked-up listing rule changes and its consultation response on 10 October. This was also reported in Listed@ASX Compliance Update which was published shortly afterwards. In late October a formal compliance update was released advising listed entities of the availability of the new ASX online training environment developed to provide a preview for listed entities of the changes to the suite of online forms. Training and guidance material was also released to help issuers with the changes. A further update was planned for this week prior to the effective date.

ASX has received feedback from listed entities on the new training environment and this is likely to lead to future enhancements.

b) Digitisation of CHESSE statements (verbal update)

ASX reported that there has been good progress through working group meetings with the key stakeholders on the transition to electronic CHESSE holding statements. The most recent meeting was presented with a straw man for consideration which had two key elements: the ingestion of electronic communication details (i.e. emails) into CHESSE and how the holding statements will be delivered to investors.

A key goal is to not over burden broker participants who will be delivering the email addresses. The emails will likely be transferred into CHESSE through messaging, as it currently is, while acknowledging that not all software providers currently offer that ability.

Once emails are in the system and investors have elected to receive electronic communication then ASX, probably by around about the middle of 2020, will be providing an electronic delivery solution. That will likely involve access to a PDF version of the existing holding statement. ASX Settlement will continue to provide CHESSE holding statements as a security and fraud prevention measure.

Investors will access the holding statement on an ASX hosted site after answering one or more security questions that will appear on a pop-up screen after they click on a link contained in an email sent to the investor. The statement will set out the shares that the investor has traded in that given month. Consideration is also being given to providing some limited history of holding statements, for example, the last twelve months.

A member asked if ASX, when encouraging brokers to provide email addresses, could ask if those addresses can also be used for other types of issuer communications. ASX has explored this in its discussions with participants and early indications have been positive. Subject to that agreement and a sign-off that there are no legal impediments, ASX will examine what functionality would be required.

c) Transfers to the CHESSE Sub-Register (verbal update)

The Chair noted this agenda item had been requested by a member to provide an update on the process simplification being delivered through changes associated with transfers from the issuer to the CHESSE sub-register.

The measure relates to the removal of the requirement (for a subset of settlement only participants that meet certain qualifying criteria and apply to ASX) to provide a paper transfer document to issuers prior to those transfers being effected.

ASIC has advised ASX that it can proceed with formal lodgement of these rule amendments. At that time ASX will publish the final rule amendments and the form of guarantee required. That rule package is then subject to a formal regulatory disallowance period, which can be up to 28 days. The amendments are expect to come into effect in mid to late December 2019.

It was also noted that the first tranche of CHES replacement rule amendments include a change to remove the documentation requirement for all participants, with the new system involving pre-transfer validation by issuers of holder information in messaging.

A member reinforced that eligible settlement participants would consider using the interim arrangement on a case by case basis given the broader solution that will come with CHES replacement and will provide benefits to all participants.

AGENDA ITEM 4: ADMINISTRATION

a) Minutes from the 19 September 2019 Business Committee Meeting

The minutes of the 19 September 2019 meeting were approved without further change.

b) Forward work program

The proposed Business Committee meeting dates for 2020 were noted. A member asked if ASX could advise members of the time of day the meetings would be held next year. The Chair noted that traditionally the first three meetings of the year are held at lunchtime with the last meeting later in the afternoon. He agreed to send out a confirmation of meeting times to members.

c) Other matters

Clearing participant business continuity and disaster recovery

The final action item from the last Business Committee meeting related to concerns about elements of an ASX guidance notice about participant business continuity and disaster recovery. ASX agreed to consider the feedback received and come back with an update.

The ASX Chief Risk Officer indicated that, in response to the feedback, ASX will be modifying the earlier guidance note. As part of its consideration of how to address the concerns ASX met with a group of AFMA members representing technologists, business representatives and Chief Operating Officers. A proposal was put forward suggesting how the guidance might be modified, however there was no universal agreement of the way forward. ASX is undertaking another round of fact finding, requesting that participants provide information on their firm's capabilities compared to the proposed recovery time objectives. Additional time, to end February 2020, is being given for participants to provide the required information. This will then be used to consider how to modify the guidance note. That will be subject to another round of discussions with participants.

There were no further questions from members.

AGENDA ITEM 5: NEXT MEETING

The next meeting is scheduled on 1 April 2020.

The meeting closed at 2.00pm.

Signed as a correct record of the meeting.

Chair

Date



BUSINESS COMMITTEE MEETING PAPER AGENDA ITEM 4B

Topic	Forward Work Program
Date	8 April 2020
Purpose of this paper	To update Members on the forward work program of the Business Committee for 2020.

OVERVIEW

It is proposed to have a total of three further meetings of the Business Committee over the course of 2020. The proposed Business Committee dates are:

- Wednesday, 1 July 2020;
- Wednesday, 23 September 2020; and
- Thursday, 19 November 2020.

Subject to any input from members who wish to suggest additional items, the forward work program of the Business Committee in 2020 will be predominately focused on CHES replacement: technology development, business requirements, and implementation processes.

A second major stream of work will be Corporate Action STP Phase 2. The working group drawing on a range of stakeholders is expected to run until at least September 2020.

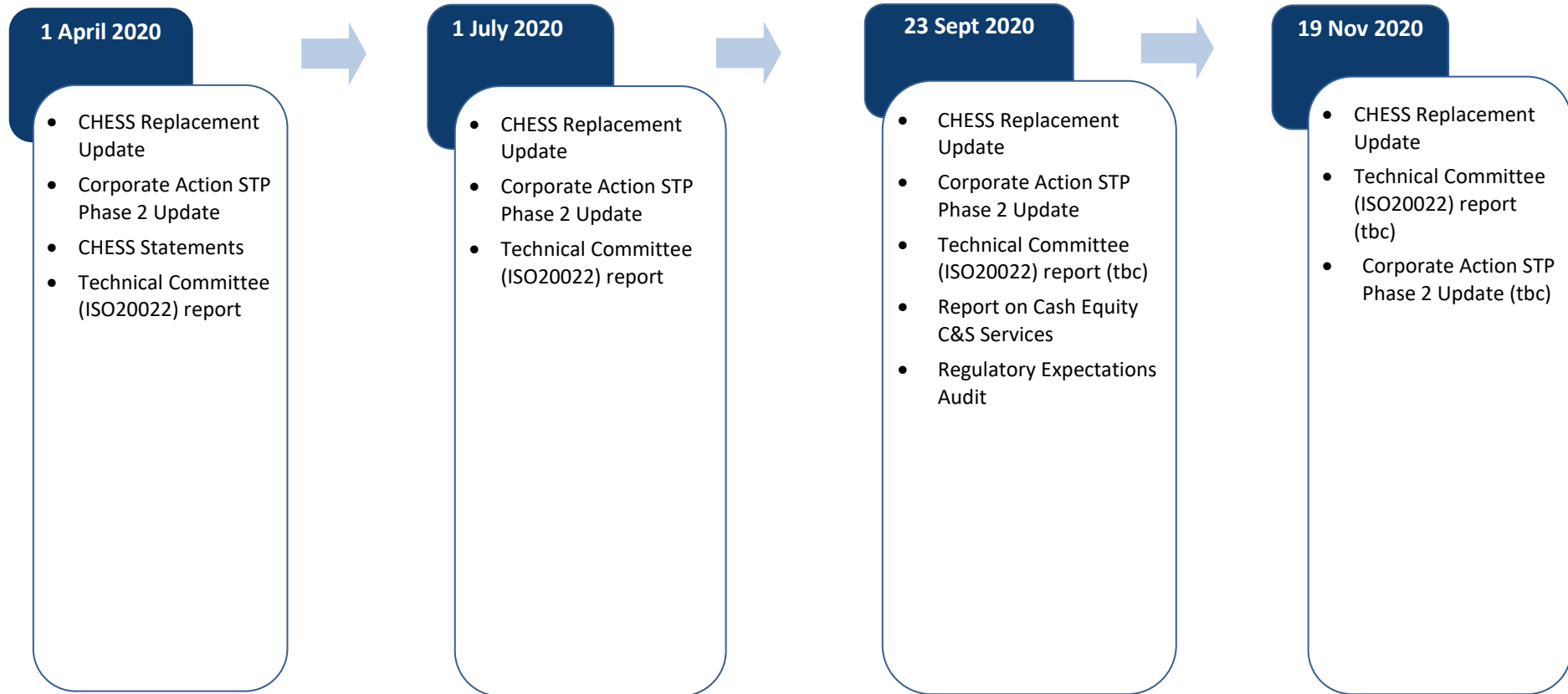
Members of the Business Committee are invited to suggest topics for inclusion in the forward work program at any time by contacting the Business Committee Secretariat.

The April meeting of the ISO 20022 Technical Committee is anticipated to be the last meeting of that committee, subject to discussion with the committee members and closure of all open action items.

ATTACHMENTS

Attachment A – Business Committee Forward Work Program

Attachment A: Business Committee Forward Work Plan



Note: the forward work program does not include the standing agenda items for each meeting.