CHESS replacement

Consultation on the Scope and Implementation of Release 2 (Settlement and Subregister)



Response to consultation feedback

26 November 2024





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Executive Summary

On 2 August 2024, ASX released a <u>consultation paper</u> on the proposed approach to Release 2 of the Clearing House Electronic Subregister System (CHESS) replacement system, which sought feedback on the:

- design, scope and schedule for Release 2;
- high level plan for the timing and approach for a transition to a T+1 settlement cycle;
- · approach to interoperability for CHESS replacement; and
- testing and industry readiness approach for Release 2.

37 submissions were received from a range of CHESS Users¹ and other industry stakeholders. ASX thanks all stakeholders who responded, as well as those who contributed to the proposals outlined in the consultation paper.

Feedback was generally supportive of ASX's proposals and while ASX intends to proceed as proposed on most of the items outlined in the consultation paper, there are several areas where ASX has adjusted its approach to address industry feedback. Further industry engagement is required to establish an agreed approach on several other items.

An overview of how ASX has responded to the key items subject to consultation is provided in Table 1 below.

Table 1: Overview of feedback and proposed changes resulting from consultation on Release 2

Items proceeding as planned	Items adjusted to incorporate consultation feedback	Items requiring further industry engagement	
 Clearing scope Settlement scope* Subregister scope* Connectivity and data interfaces* Technical scope including descoping ISO 20022 message signing Implementation of Release 2 as a single release Approach to interoperability T+1 in the context of CHESS replacement 	 Release 2 timeline: adjustment to commencement of Software Build and Test phase introduction of industry timeline checkpoints adjustment to commencement and duration of the Operational Readiness phase adjustment to the Dress Rehearsal and Parallel Test phases Simplification of Cum Entitlement Balances (CEBs) 	 Timing for roll-out of new business processes Optional or mandatory nature of new functionality Provision of additional investor information Corporate actions scope and business model Use cases for data API 	

^{*} Generally proceeding as planned, with related items subject to further changes or engagement.

There were mixed responses regarding the delivery of the scope, including what should form part of Release 2 golive. Some respondents recommended that enhancements to functionality be included as part of Release 2 golive, while others suggested that Release 2 should focus on delivering core and critical functionality required to replace CHESS to ensure safe delivery of Release 2, and that enhancements be delivered post golive.

Additionally, respondents queried whether new proposed functionality would be mandatory or optional. This included whether they would be mandatory for use (to be detailed in the ASX Clear and ASX Settlement Operating Rules and Procedures), or mandatory for build (for Software Providers to achieve accreditation). Some respondents also

¹ In this document, 'CHESS Users' refers to Approved Market Operators (AMOs), Clearing Participants, Settlement Participants, Payment Providers and Share Registries.



queried the potential impact to costs associated with the proposed new functionality and sought further information on the implications of these changes on pricing.

An updated timeline for Release 2 is shown in Figure 1 below. Two new industry timeline checkpoints have been introduced to reflect industry feedback in relation to the proposed Release 2 build and test phases. While at this time ASX's plan is working towards a potential go-live for Release 2 between April and December 2029, ASX notes that the go-live range is subject to industry readiness which will continue to be monitored as the project progresses.

ASX will continue to provide further information in line with the scheduled documentation in Section 9 to allow the industry to appropriately plan and prioritise during the build and test phases. ASX will work towards communicating the target go-live date with at least 12 months' notice.

2024 2025 2026 2027 2028 2029 2030 q1 q2 q3 q4 q1 q2 q3 q4 q1 q2 q3 q4 q1 q2 q3 q4 q1 gression Release 1 Go Live range Release 2 timelines moved to ninimise overlap with Release 1 Software Provider Build and Test Accreditati<mark>on</mark> CHESS User integrated upstream/downstream system analysis & development Subject to Industry Timeline Checkpoints Inflight Migration Testing CHESS User Testi Industry Timeline Industry Timeline ional Readiness ndustry Wide Testing Rehearsals and Parallel Test Release 2 Go Live in 2029 [window to accommodate testing contingency]

Figure 1: CHESS replacement timeline (post consultation)[†]

Based on the feedback received, ASX intends to proceed with the implementation of CHESS replacement Release 2 on the basis that if a decision is made to move to T+1, it should occur after Release 2. At the earliest, a T+1 go-live date would likely be <u>at least</u> 12 months after the CHESS replacement Release 2 go-live date, and <u>at a minimum</u> 18 months after a decision to transition to T+1.

While the completion of consultation on Release 1 and Release 2 are important milestones, ASX acknowledges that there is substantial work ahead for ASX and industry, as detailed solution design, documentation and build and test work continues. Finalisation of the consultation process on Release 1 and Release 2 is by no means the end of industry engagement on CHESS replacement and T+1. ASX is committed to ongoing and meaningful engagement through industry forums outlined in Section 10.2 of this paper.

We look forward to working with industry to implement Release 1 and Release 2 of CHESS replacement.

 $[\]dagger$ This timeline may be subject to change due to a range of factors as implementation progresses

^{*} CHESS User upstream/downstream integrated system analysis and development includes both internal and vendor supplied systems (not connected to CHESS) impacted by CHESS interface and messaging changes.



Background





1. Background

On 2 August 2024, ASX released a <u>consultation paper</u> on the proposed approach to Release 2 of the CHESS replacement system. Release 2 will replace the settlement and subregister functionality, deliver improved corporate action functionality and make further enhancements to clearing. Release 2 will also introduce global standard ISO 20022 messaging interfaces for Participants, Share Registries and Payment Providers.

The consultation paper invited feedback on the proposed:

- design, scope and schedule for Release 2;
- high level plan for the timing and approach for a transition to a T+1 settlement cycle;
- · approach to interoperability for CHESS replacement; and
- testing and industry readiness approach for Release 2.

The proposals outlined in the consultation paper were informed by ongoing industry engagement with the CHESS replacement <u>Technical Committee</u> (Technical Committee) and its working groups, the <u>ASX Business Committee</u> and the <u>T+1 Working Group</u>. The <u>Cash Equities Clearing and Settlement Advisory Group</u> has also provided strategic high-level input on matters related to the project.

The consultation on Release 2 follows earlier consultation in 2024 regarding the staged implementation approach and implementation of Release 1 of CHESS replacement (clearing services). Release 1 will replace the clearing component of CHESS and introduce Financial Information eXchange (FIX) messaging for trade registration for all AMOs.

ASX <u>consulted</u> on Release 1 on 14 March 2024, and published its <u>response to consultation</u> on 28 June 2024. ASX is working towards the implementation of Release 1 between mid-March to end-April 2026.



Introduction





2. Introduction

2.1. Overview of submissions received

ASX received 37 written submissions to the consultation paper, 25 of which were confidential submissions. All 12 non-confidential submissions are published on ASX's <u>website</u>.

Submissions were received from a range of stakeholders, as summarised below. We received a number of submissions where an organisation acts in multiple capacities (for example, a Clearing and Settlement Participant that is also a Payment Provider), and in the list below they are accounted for in each capacity. For all other figures and statistics used throughout the paper, one submission is counted once.

- Approved Market Operators (AMOs) 2 responses
- Clearing and Settlement Participants 18 responses
- Settlement Participants 3 responses
- Payment Providers 2 responses
- Software Providers 8 responses
- Share Registries 4 responses
- Industry associations 6 responses
- Other interested parties 1 response

ASX thanks those who responded to the consultation paper and remains committed to working closely with stakeholders throughout the CHESS replacement project.

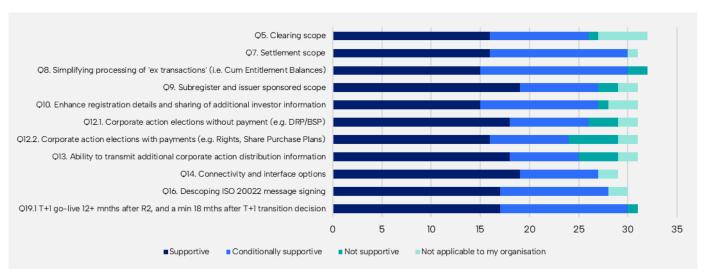
2.2. Overview of quantitative responses

All questions in the consultation paper were optional and visible to all respondents. The data reported across the graphs presented in this response paper are reflective of respondents who chose to respond to the question.

Data reported are a direct play-back of raw responses with no additional overlay applied.

Figure 2 below provides an overview of the responses ASX received to key quantitative questions asked throughout the consultation paper.

Figure 2: Responses to key quantitative questions





2.3. Key feedback themes

2.3.1. Proposed design and scope for Release 2

Consistent with the industry input that informed the proposals outlined in the consultation paper, there was general support for the proposed scope of Release 2. However, there were mixed responses regarding the delivery of the scope, including what should form part of Release 2 go-live. Some respondents recommended that enhancements to functionality be included as part of Release 2 go-live, while others suggested that Release 2 should focus on delivering core functionality required to replace CHESS to ensure safe delivery of Release 2, and that enhancements should be delivered post go-live.

Respondents also queried whether the new proposed functionality would be mandatory or optional.

Some respondents also queried the potential impact to costs associated with the proposed new functionality and sought further information on the implications of these changes on pricing and fees.

Key feedback received in relation to each category of Release 2 scope is summarised below.

Clearing

Respondents were broadly supportive of the scope of clearing upgrades, including trade registration with continuous netting and the introduction of position accounts.

While there is support for the introduction of account segregation on an optional basis, feedback indicates there will be limited uptake of the account segregation models at Release 2 go-live and that there may be potential uptake over time post Release 2.

Settlement

Respondents were supportive of the scope of settlement functionality, including improvements to pre-settlement processes, matching and claims and adjustments. However, there was minimal support for the proposed approach for auto-hold pending stock, due to concerns regarding impacts to current processes.

The majority of respondents supported simplifying the processing of CEB, however some indicated concerns with the proposal of a non-materialised CEB.

Further information was sought on topics such as matching criteria, how non-batch delivery-versus-payment (DvP) will work, timing of batch and fail fees calculation.

Subregister

Respondents were broadly supportive of the proposed scope of subregister and Issuer sponsored processes. They were also broadly supportive of the proposed approach to enhancing registration details and for additional investor information to be transmitted through CHESS. A small minority of respondents did not support the proposed removal of new holding balance fields from ISO 20022 messages.

Corporate actions

While stakeholder feedback indicated strong support for the proposed new corporate action functionality, there was mixed views regarding when this should be delivered given the size and scope of the change. A number of respondents were of the view that core functionality should be prioritised for Release 2, and enhancements such as those for corporate actions could be delivered after Release 2 go-live. Some respondents requested further clarity on costs associated with these enhancements.

Connectivity interfaces and data

Respondents indicated support for the proposed connectivity and interface options in Release 2.

Feedback indicated stakeholder interest in using an optional data API, particularly for holding balances. However, further information was requested on the type of data available through APIs and use cases.



Technical scope

Respondents indicated they were supportive of ASX's proposal not to use ISO 20022 message signing for inbound and outbound messages.

2.3.2. Release 2 timeline and implementation approach

The majority of respondents supported the proposed implementation approach, or did not express any concerns about the proposed release structure. There was acknowledgement of the heightened risks associated with alternative approaches to implementing Release 2 across more than one release. Some respondents noted the importance of and need for comprehensive industry testing, multiple dress rehearsals and a rollback plan as critical risk mitigating activities for the successful implementation of Release 2.

While some respondents supported the proposed timeline, others indicated concerns in relation to compressed timelines and overlapping testing activities, as well as the potential need for additional time to cater for defects and complete the changes to their internal or vendor–supported up and down stream integrated systems. Some respondents requested further details on the proposed changes and expected test phase activities to more accurately estimate the time required to complete each test phase.

In determining the go-live date, respondents asked ASX to consider avoiding calendar and financial year-ends, holiday periods (including peak holiday periods for offshore teams), calendar quarter ends, corporate half and full year result periods and corporate action periods, regulatory reporting periods, and annual general meeting season.

2.3.3. T+1 settlement cycle

Most respondents supported sequencing T+1 after Release 2 go-live. Respondents highlighted the importance of including functionality to enable T+1 as part of the scope for Release 2 to minimise re-work, re-testing and delivery risk.

2.3.4. Interoperability

Respondents that commented on this topic indicated support for the proposed approach or did not indicate concerns, with the exception of one respondent.

2.3.5. Release 2 industry testing

Feedback was generally supportive of the scope and structure of the proposed Software Provider test phases. Respondents did not request additional or alternative test phases. Some respondents noted that they were still not clear on the changes required to their solutions and could not estimate the work required without detailed specifications.

Feedback was also generally supportive of the scope and structure proposed for CHESS Users to complete testing. Several respondents sought further details on the timing and design of the phases, with some noting that the timeline to complete the required activities appeared compressed.

2.3.6. Release 2 industry go-live readiness

No specific concerns were raised in relation to the approach to Release 2 industry go-live readiness. Feedback received highlighted the importance of Implementation Dress Rehearsals (or a closed user group for Participants), ongoing industry engagement to ensure confidence in the cutover process and consideration of the unique needs/models/edge-cases of Participants.



Release 2 functional and technical scope





3. Release 2 functional and technical scope

This section summarises feedback received and outlines ASX's response to feedback on the Release 2 functional scope (section 3.1) and technical scope (section 3.2).

3.1. Functional scope of Release 2

3.1.1. Amount of functional change in Release 2

3.1.1.1. Feedback

There were mixed responses regarding what should be delivered as part of Release 2 go-live. Some respondents recommended that enhancements to functionality be included as part of Release 2 go-live. Others recommended that Release 2 focus on delivering the core and critical functionality required to replace CHESS, with enhancements to be delivered after Release 2 go-live to further reduce the risks of Release 2.

3.1.1.2. ASX response

ASX notes the mixed feedback in relation to the amount of functional change in Release 2.

ASX is conscious that the CHESS replacement project is a rare opportunity to deliver meaningful change for the industry as a whole, and deferring changes post Release 2 go-live could result in significant time lapse before the benefits can be realised. As a result, ASX plans to retain the functional scope as consulted on, while carefully balancing delivery risk, which we will actively monitor via the Technical Committee.

ASX will seek to balance the scope of change with delivery risk through effective prioritisation and will continue to work with industry on the most effective way to deliver changes. This includes the potential for non-core functionality to be available for build and test during the CHESS replacement project, but to be made operational incrementally, shortly after Release 2 go-live. For example, for stand-alone workflows such as non-batch DvP and additional corporate action services, further work is required to assess options for go-live timing as well as the approach to accreditation of non-core functionality.

This approach seeks to leverage the project to drive meaningful change across the industry, while balancing delivery and implementation risk.

3.1.2. Optional or mandatory nature of functional scope

3.1.2.1. Feedback

Feedback received in relation to a number of aspects of Release 2 functional scope noted queries and/or concerns about the optional or mandatory nature of new functionality for CHESS replacement. This included whether the functionality would be mandatory for use (to be detailed in the ASX Clear and ASX Settlement Operating Rules and Procedures), or whether it would be mandatory for Software Providers to build to in order to be accredited to use the system.

3.1.2.2. ASX response

ASX acknowledges that having certainty in relation to the optional or mandatory nature of new functionality is important for planning purposes for both CHESS Users and their Software Providers.

Some of the new functionality proposed for CHESS replacement will require a critical mass to be viable (such as Participants' support for non-batch DvP and Share Registries' support for new corporate action services). ASX is conscious that low take-up of optional services would be undesirable for both ASX and industry.

ASX plans to engage further with industry via the Technical Committee to validate industry demand for any new services, to ensure that new services will have sufficient adoption by Participants and Share Registries and are viable before proceeding with development.



For any new fields in existing messages (e.g. additional investor information), or sub-workflows (e.g. Participant initiated hold and release), it is expected that Software Providers will need to accredit to this functionality, with usage governed by the ASX Clear and ASX Settlement Operating Rules and Procedures, where relevant and appropriate.

ASX is working towards completing the engagement noted above in 2025, with the exception of consultation on the Operating Rules (see section 10.1).

3.1.3. Pricing

3.1.3.1. Feedback

A number of respondents queried the potential impact to costs associated with proposed new functionality, and sought further information on the implications of these changes on pricing and fees. Respondents noted that changes to customer costs can result from new or altered workflows or new services.

3.1.3.2. ASX response

ASX has <u>consulted</u> with stakeholders on a new pricing policy for its cash equity clearing, settlement and issuer services. The proposed pricing policy aims to ensure that ASX recovers no more than the efficient costs of providing these services, including a reasonable return on investment commensurate with the commercial risks involved.

In light of the feedback received to both of the consultation papers on Release 2 and the proposed pricing policy, ASX is making amendments to the draft pricing policy to incorporate stakeholder feedback to the consultations, where appropriate. Prior to implementing a new pricing policy, ASX will respond to the feedback received and explain the basis for any subsequent changes to the policy. ASX proposes that the final pricing policy will provide further information about the process that ASX will go through for any fee adjustments.

3.1.4. Clearing

Clearing functionality in Release 2 refers to the processes involved in the validation and registration of trades, including the mechanisms for novation and netting. The clearing component that will be implemented in Release 1 will introduce FIX messaging for all AMOs, as well as a more efficient netting process. Release 2 is intended to further enhance clearing functionality by migrating Clearing Participants to ISO 20022 and enabling improvements to business processes and message simplification.

In the consultation paper, ASX outlined proposed scope regarding:

- · trade registration with continuous netting;
- position accounts; and
- account segregation.

ASX sought feedback on the scope of clearing upgrades, and whether organisations would use an optional segregated account structure if offered by the CHESS replacement system.

3.1.4.1. Feedback

Scope of clearing upgrades

Half the responses to Question 5 were supportive (50%), a further 31% were conditionally supportive, 3% not supportive and 16% not applicable (Figure 3).



Figure 3: Responses to Question 5*



Respondents were broadly supportive of the scope of clearing upgrades, including trade registration with continuous netting and the introduction of position accounts. Several respondents noted that the introduction of continuous netting of trades should reduce ASX end-of-day processing requirements and potentially have a positive impact on the operating hour requirements for T+1. One respondent noted the importance of reviewing the timing of Exchange Traded Option (ETO) exercises received in CHESS from a netting perspective.

Optional segregated account structure

While there is support for the introduction of account segregation on an optional basis, consultation feedback to Question 6.1 indicates there will be limited uptake of the account segregation models at Release 2 go-live (Figure 4) and that there may be potential uptake over time post Release 2 go-live. Several respondents specifically noted that their support for the introduction of account segregation was contingent on the functionality being optional. For respondents that indicated a potential interest in using a segregated account structure, there was interest in both the segregated house and omnibus client structure and segregated positions for third party clearers (Figure 5).

Figure 4: Responses to Question 6.1*

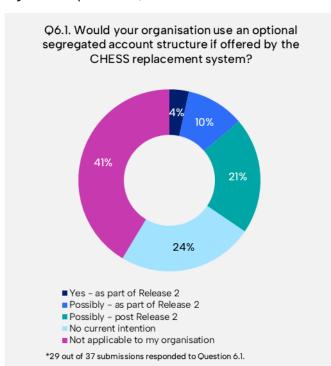
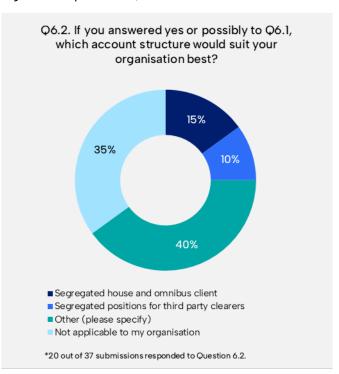


Figure 5: Responses to Question 6.2*





Several respondents acknowledged the flexibility of ASX's proposed solution (i.e. optional and supporting multiple segregated account structures) as beneficial but complex. Some respondents highlighted the need to consider the effort required to build and test this functionality against the relative priority of other core or critical functionality.

Two respondents noted there was limited benefit of segregating house and client positions given the current client money rules prevent the Clearing Participant from posting client collateral for positions entered into by clients. One Clearing and Settlement Participant sought clarification on whether ASX intended to segregate Cash Market Margin (CMM) for each position/settlement account.

Two AMOs identified concerns with ASX's proposed mechanism for identifying house versus client trades (i.e. leveraging an existing field used by AMOs for regulatory reporting purposes).

3.1.4.2. ASX response

Trade registration with continuous netting

ASX intends to proceed with the netting design, given the benefits this functionality will provide in terms of scalability and reduction of overnight processing which will lead to increased trade capacity. The continuous netting process also enables flexible reporting of positions, once a trade has been netted. This would provide users more visibility and the flexibility to receive real-time intra-day data.

ASX notes the feedback on ETO exercise timings and will continue to review this as a necessary change for T+1.

While ASX does not plan any major changes for AMOs, they may need to factor in a minor interface upgrade as part of Release 2.

Position accounts with optional account segregation

ASX intends to proceed with the introduction of account segregation functionality on an optional basis. Clearing Participants will have the option to build and test account segregation functionality over the course of the CHESS replacement project and determine which account structure they wish to use for go-live of Release 2. Unless requested otherwise, ASX plans that each Clearing Participant have a single commingled position account mapped to a single commingled settlement account, providing an equivalent experience to the current CHESS setup.

ASX intends that CMM will continue to be calculated on a net basis, with any changes to margining arrangements to be delivered separately to the CHESS replacement project. ASX notes that the use of client funds is subject to the requirements of (among other things) the *Corporations Act 2001 (Cth)*. ASX would need to engage with Participants and regulators on the practicalities of segregating client collateral in relation to segregation and portability arrangements.

ASX will continue to work through the proposed mechanism for identifying house versus client trades with parties interested in using the functionality and AMOs.

3.1.5. Settlement

Settlement functionality supports the activities required to transfer ownership of securities and the corresponding payments. In the consultation paper, ASX outlined proposed scope regarding:

- pre-settlement priming and scheduling for settlement;
- pre-settlement matching;
- batch settlement;
- payments;
- ex movements (CEB);
- claims and adjustments; and
- Exchange Traded Fund (ETF) creations/redemptions.

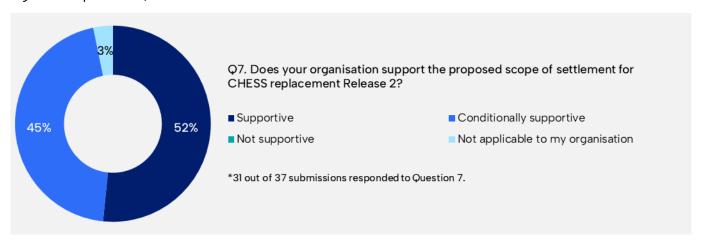


ASX sought feedback on the scope of settlement functionality proposed for Release 2, and whether organisations supported the simplification of processing of 'ex transactions' (i.e. CEB).

3.1.5.1. Feedback on settlement scope

The majority of responses to Question 7 were supportive (52%), a further 45% were conditionally supportive and 3% not applicable (Figure 6).

Figure 6: Responses to Question 7*



Respondents were supportive of the proposed scope of settlement. In particular, there was support for the continuation of 'DvP Model 3' with a single daily batch. A number of submissions also noted the considerations required for a possible transition to a T+1 settlement cycle, including support for a later batch settlement timing, operating hour extensions and suggested further streamlining of the trade matching process to support a move to T+1. Two respondents noted their support for explicit settlement (given that in the previous iteration of the CHESS replacement project ASX consulted on an implied settlement concept).

Feedback regarding specific aspects of settlement scope as outlined in ASX's consultation paper is summarised below.

Pre-settlement - priming and scheduling for settlement

Participant initiated hold and release: a number of respondents highlighted the importance of this functionality for T+1 and suggested that it should be mandatory. A respondent suggested the need for a defined cut-off time and introduction of cash penalties for messages on hold which fail to settle on the intended settlement date.

Auto-hold pending stock: the small number of respondents that specifically provided feedback on this functionality were not supportive of its inclusion in scope. One respondent did not consider the functionality necessary, and another respondent was not supportive except in the case of batch settlement.

Pre-settlement - matching

Some respondents indicated that the proposed changes relating to additional matching criteria are critically important, especially as it would position the industry well for T+1. A number of submissions requested further work be undertaken to allow respondents to understand the change implications to matching processes, with suggestions that additional matching fields should be optional.

Two respondents suggested using the Unique Transaction Identifier (UTI) as a matching criteria.

A small number of respondents suggested that additional matching criteria is not core functionality critical for Release 2 go-live and could be considered for delivery post Release 2 go-live to de-risk go-live.



Batch settlement fail processing

While there was limited feedback on the proposed removal of the Standard Settlement Price (SSP) from the batch settlement process, three respondents noted their support for the removal of SSP.

Payments

Pre-approved payment limits: one respondent suggested that real-time or periodic calculation of settlement fail advice is required to make the enhancement practical, while another noted that pre-approved limits may increase costs.

Non-batch DvP: some respondents noted the importance of providing a non-batch DvP capability to allow transactions to be settled outside of batch settlement, or noted it as a key enabler for T+1. Other submissions suggested there wouldn't be high numbers of use cases and therefore the functionality could be optional and considered for after Release 2. It was suggested that it was important that non-batch DvP transactions do not lead to a reduction in efficiency in the single daily batch, and should be seen as a secondary solution. A number of submissions also requested more detail to understand how this functionality would work.

Claims and adjustments

One submission suggested extending automated claims to additional corporate action events, and consideration for the automated transfer of franking credits.

3.1.5.2. ASX response on settlement scope

Given the support for the proposed scope of settlement, ASX intends to proceed as outlined in the consultation paper with the exception of CEB (see section 3.1.5.4 below) and auto-hold pending stock functionality. Given the lack of interest in auto-hold pending stock functionality, ASX does not intend to include this as part of the Release 2 scope.

ASX proposes to proceed with the removal of SSP (i.e. an SSP will not be applied to failed netted obligations and will instead be funded by ASX Clear), provided the funding requirement this would impose on ASX Clear is acceptable (this assessment is ongoing).

ASX acknowledges that a number of respondents requested additional detail and had specific queries regarding aspects of settlement functionality. ASX plans to continue to work with industry through the Business Design Working Group (BDWG) to further consider the topics (among others) listed below in 2025:

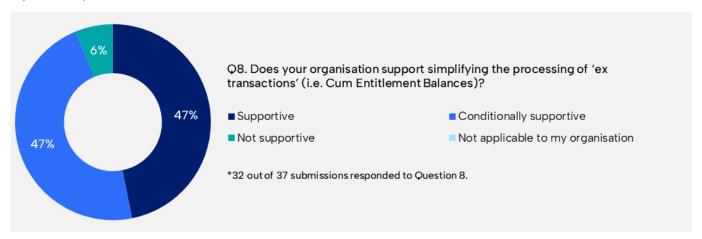
- Matching criteria, including UTI and new fields;
- How non-batch DvP will work, including payment channel and evaluation of associated industry costs;
- Timing of batch;
- Fail fees calculation and settlement (noting one request for a settlement fail advice pre-batch, which ASX notes is not currently in scope); and
- Enhancements to automated claims.

3.1.5.3. Feedback on simplification of Cum Entitlement Balance

47% of responses to Question 8 were supportive, a further 47% were conditionally supportive and 6% not supportive (Figure 7).



Figure 7: Responses to Question 8*



Submissions that were supportive or conditionally supportive of simplifying CEB noted that this would result in efficiencies. A number of respondents requested further detail and analysis of the impacts of any changes, including flow-on implications for the securities lending industry. Some respondents indicated concerns with the proposal of a non-materialised CEB. The following requests in connection with the proposal to simplify the CEBs were made:

- an intra-day report showing the expected CEB per HIN;
- a complete functional set of ex transactions for go-live of Release 2;
- extensions to include ETF creations;
- support settlements which have ex and record date as the same date to enable T+1; and
- the ability to move entitlements in relation to securities lending transactions.

3.1.5.4. ASX response on simplification of CEB

Since the publication of the consultation paper on Release 2, ASX has held a number of industry workshops and bilateral meetings to further discuss the simplification of the CEB. Based on the consultation feedback received and further discussions with industry, ASX intends to retain a materialised CEB and will also continue to explore opportunities for simplification. The aim is to balance industry needs, investment in build and test effort and minimise impact on existing business processes.

A materialised CEB will continue to be generated, which aims to enable intra-day reporting of CEB and other complex scenarios identified by industry through the BDWG.

Anticipated simplifications to current CEB functionality include:

- A single CEB will be supported per security at a time including where there are concurrent corporate actions. A single basis of movement will be supported on transactions (either cum or ex, applied to all concurrent corporate actions).
- All transactions will be assumed cum, and there will be no defaulting rules. Participants will be able to flag ex by exception.
- All market obligations, such as trade and netted, will be considered cum. Importantly, basis of movement is not a netting criteria and ex movements are not supported in batch for market obligations. For all other transaction types, the ability for a Participant to override the assumed cum to ex will be supported.
- Consistent with the broader approach to the use of ISO 20022 messages, ASX will align to global standard ISO
 messaging for CEB where possible, and will review with the industry the most appropriate ISO message to use for
 reporting.

ASX will continue to work with industry to refine this functionality, and will publish additional details through documents such as the Business Design Document (BDD).



3.1.6. Subregister

Subregister functionality involves the maintenance of the official record of securities ownership on the CHESS Subregister, including the processes for recording changes in ownership, managing holdings, interactions with the Issuer Sponsored Subregister and ensuring the integrity and accuracy of the CHESS Subregister.

Release 2 is intended to upgrade and modernise the CHESS Subregister functionality to provide more structured holder details, with optionality for the capture of additional investor information to support Share Registry services and promote a more consistent investor experience.

In the consultation paper, ASX outlined the proposed scope regarding:

- registration details, foreign ownership restrictions and additional investor information;
- Issuer sponsored processes including movements from Issuer sponsored (SRN) to CHESS (HIN), SRN enquiry and movements from CHESS (HIN) to Issuer sponsored (SRN) (including de-listings); and
- holding balances on ISO messages.

ASX sought feedback on the scope of subregister and issuer sponsored processes for Release 2. ASX also sought feedback on whether organisations supported the proposal to enhance registration details and whether the transmission of additional investor information is beneficial, as well as any additional information fields organisations would find useful to form part of CHESS replacement.

3.1.6.1. Feedback on scope of subregister and issuer sponsored processes for Release 2

The majority of responses to Question 9 were supportive (61%), a further 26% were conditionally supportive, 7% not supportive and 6% not applicable (Figure 8).

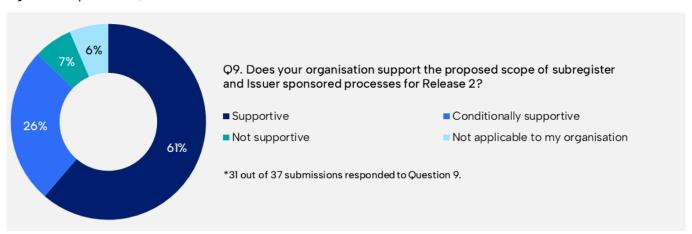


Figure 8: Responses to Question 9*

Broadly, responses were supportive. Respondents acknowledged that the additional features would provide an improved investor experience and would promote electronic transmission of information between investors and Issuers. This would likely reduce reliance on paper forms and reduce mismatches for transfers and conversions.

While acknowledging the benefits of the proposed new features, a small number of respondents noted that if the new features were made mandatory for Release 2 go-live, this could put pressure on build and test timelines. They also suggested that the new functionality could be delayed for a future release after Release 2 go-live. One respondent in particular was concerned about the scale of change and recommended rationalisation to manage timeline, complexity and risk.



3.1.6.2. Feedback on registration details, foreign ownership restrictions and additional investor information

48% of responses to Question 10 were supportive, a further 39% were conditionally supportive, 3% not supportive and 10% not applicable (Figure 9). Respondents were supportive of the proposed enhancements on the basis that they would benefit the overall industry (investor to Issuer), provide additional abilities to self-serve and improve investor experience.

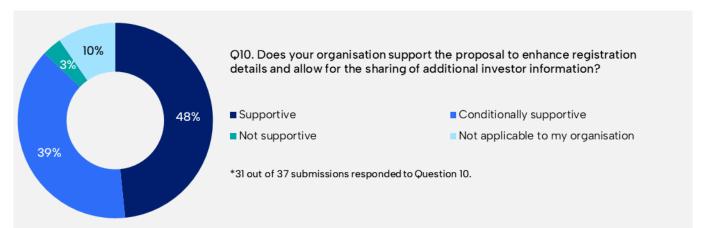


Figure 9: Responses to Question 10*

Registration details

Respondents recognised that there are complexities and challenges in relation to applying a new format to existing holder registration details and noted the importance of understanding the guidelines for the registration and transition process for existing client accounts. They also noted the importance of agreeing a migration plan for Issuer holding details in any transition to a new format to ensure compliance with the new standards. A number of respondents sought further details to better understand the Registration Details Conversion Tool.

Foreign ownership restrictions

Of the small number of submissions that provided specific feedback on this functionality, feedback was broadly supportive. Feedback included support for aligning the residency indicator at the holding level rather than the account level. One respondent requested further information on how changes to residency indicator would be reflected in the ASX Clear Operating Rules and Procedures and ASX Settlement Operating Rules and Procedures. Another respondent noted that the design will need to cater to inconsistencies in terms of restrictions applied (inconsistencies between the application for aggregate foreign ownership restrictions and foreign ownership exclusions). One respondent requested more information around foreign ownership restrictions.

Additional investor information

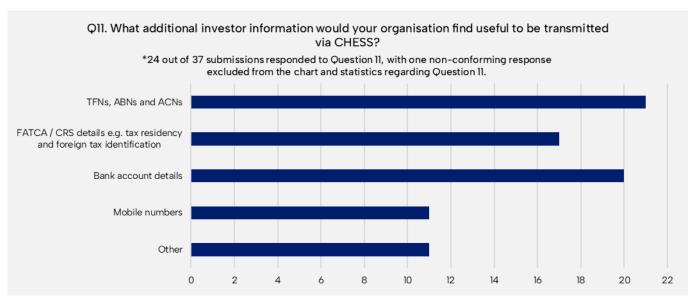
A number of respondents were supportive of additional investor information fields remaining optional. One respondent suggested that if the additional investor information fields were made mandatory, it would potentially impact their ability to match for transfers.

Respondents also noted that the requirement for stand-alone messages to pass through additional information should not result in additional costs to Participants.

Responses to Question 11 indicated that it would be useful to have TFNs, ABNs, ACNs and bank account/PayID details transmitted through CHESS (Figure 10). Further, some respondents indicated it would be useful to transmit Foreign Account Tax Compliance Act (FATCA) / Common Reporting Standard (CRS) details and mobile numbers through CHESS.



Figure 10: Responses to Question 11*



A number of respondents noted the implications of collecting, using and disclosing additional investor information from a legal and regulatory perspective, and highlighted the need for appropriate controls.

In relation to bank account and electronic payment details more generally, a number of respondents noted the need to plan for the potential decommissioning of cheques and direct entry payments.

While supportive, one respondent suggested the sharing of additional investor information could be delivered after Release 2 go-live. One respondent noted the potential risk, and that cost and benefit implications could not be assessed as further information was required, including whether the information would be stored or passed-through.

3.1.6.3. ASX response on registration details, foreign ownership restrictions and additional investor information

ASX acknowledges that further work on the detailed design is required, and plans to continue to work with industry through the BDWG to further consider the topics (among others) listed below in 2025:

- Format of registration details, along with associated conversion tool;
- · Additional investor information, including legal, regulatory and privacy considerations; and
- Foreign ownership design.

Specific to additional investor information, ASX also notes:

- Current CHESS already supports the pass-through of information such as TFNs and bank account details, and it is
 intended that CHESS replacement will extend to include mobile phone numbers and additional tax information
 (e.g. FATCA/CRS). Whether this additional investor information will be stored or passed-through CHESS
 replacement is yet to be determined.
- References to bank account in the consultation paper were intended to include different ways of recording bank account details, such as BSB and account number and PayID. As a result, ASX is investigating how to identify bank accounts in the most effective way.

See section 3.1.3 for more details on ASX's approach to fee changes. In addition, ASX notes two subscription-based pricing models for subregister services:

- ASX Issuer Services for Issuers, capturing fees charged to Issuers for subregister maintenance; and
- HIN Pricing an optional fee model for Participants for sponsored HIN creation, modification and cancellation.



3.1.6.4. Feedback on Issuer sponsored processes

Responses were largely supportive of ASX's proposed enhancements to Issuer sponsored processes, with a small number of responses noting existing inefficiencies are due to the uniqueness of broker and Issuer sponsored holdings in the Australian market. Some Share Registries expressed concerns, one around the scale of change given the impact to their business, and another around the need for further operational and legal consideration. The need to be cognisant of privacy and investor protection was also noted in a number of submissions.

3.1.6.5. ASX response on Issuer sponsored processes

Given the feedback received in support of ASX's proposed enhancements to Issuer sponsored processes, ASX intends to proceed with the enhancements as outlined in the consultation paper.

ASX acknowledges that further work is required with industry in 2025 to refine the specifics, ensuring adherence to legal and regulatory requirements and having regard to the protection of investors.

3.1.6.6. Feedback on holding balances on ISO messages

A small number of submissions noted that the removal of new holding balance fields from ISO 20022 messages was a step backwards and advocated for ad hoc interim holding balances being available through CHESS, or a need for real-time reconciliation.

3.1.6.7. ASX response on holding balances on ISO messages

ASX acknowledges the concerns raised by a small number of submissions regarding the removal of new holding balance fields from ISO 20022 messages. However, given the importance of alignment to ISO standards, ASX intends to proceed as proposed in the consultation paper. ASX intends to work closely with those organisations who raised concerns to establish an alternative solution (where possible), such as further reporting or API access, to minimise impact.

3.1.7. Corporate action services

Corporate action services refer to the additional functions that CHESS provides to assist in the facilitation of corporate action events against the CHESS Subregister.

Through engagement to date, industry requested that ASX explore the ability for the CHESS replacement system to facilitate further straight through processing of corporate action events between Participants and Share Registries, by providing standardised interfaces for corporate action events announced by listed or quoted Issuers in Australia (via ReferencePoint services and market notices).

In the consultation paper, ASX proposed to provide the technical capabilities for these additional corporate action services as part of Release 2 and outlined its proposed approach in relation to:

- Corporate action elections takeover facility enhancements;
- Corporate action elections and payments; and
- Corporate action distribution confirmations.

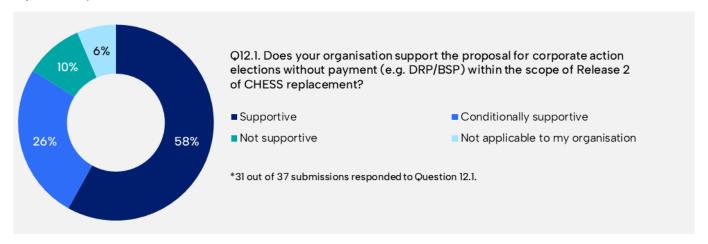
ASX sought feedback on whether organisations supported ASX's proposals for corporate action elections without payment (e.g. DRP/BSP), corporate action elections with payment (e.g. rights, share purchase plans) and the ability to transmit additional corporate action distribution information within the scope of Release 2.

3.1.7.1. Feedback on corporate action elections without payment (e.g. DRP/BSP)

The majority of responses to Question 12.1 were supportive (58%), a further 26% were conditionally supportive, 10% not supportive and 6% not applicable (Figure 11).



Figure 11: Responses to Question 12.1*



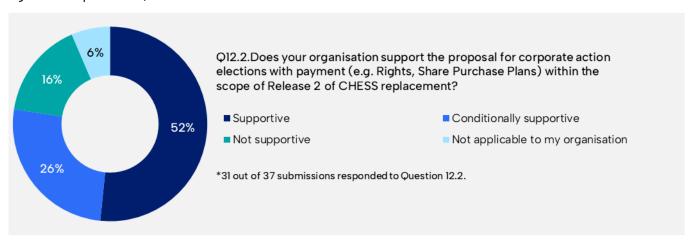
Institutional brokers and custodians that responded to the consultation paper strongly supported the enhancements relating to corporate action elections without payment. Reasons for their supportive responses included operational risk reduction, efficiencies to operational processes, benefits of automation and adoption of global standards for electronic processing of corporate action events. Most submissions from institutional brokers and custodians highlighted the importance of the functionality being available as part of Release 2, with some acknowledging the limited benefit of the functionality for retail investors. However, several Clearing and Settlement Participants, Software Providers, Share Registries and industry associations suggested that the functionality should be introduced after Release 2 go-live, to reduce delivery risk for core functionality. A number of respondents also stated the importance of the functionality being optional, not mandatory.

Other respondents noted interest in understanding costs, further detail and the ability to automate support as a consideration for take-up.

3.1.7.2. Feedback on corporate action elections with payment (e.g. rights/share purchase plans)

The majority of responses to Question 12.2 were supportive (52%), a further 26% were conditionally supportive, 16% not supportive and 6% not applicable (Figure 12).

Figure 12: Responses to Question 12.2*



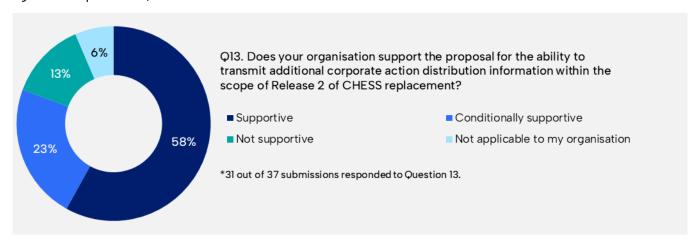
Most respondents indicated support for corporate action elections with and without payment, however a number of respondents highlighted additional complexity around corporate action elections with payment and the need for the functionality to be optional. Additional feedback regarding corporate action elections with payment included: a suggestion to extend the functionality to warrant exercises and priority issues; a suggestion to extend the functionality to include payments from Share Registries to Participants (such as making dividend payments via CHESS); and a call to carefully consider refunds (cash return upon rejection).



3.1.7.3. Feedback on ability to transmit additional corporate action distribution information

The majority of responses to Question 13 were supportive (58%), a further 23% were conditionally supportive, 13% not supportive and 6% not applicable (Figure 13).

Figure 13: Responses to Question 13*



Responses were varied, with a number of respondents considering the ability to transmit additional corporate action distribution information as core functionality and important for Release 2 go-live, while other respondents suggested the functionality should not form part of Release 2 go-live and could be considered at a future date. Some respondents suggested the functionality should be optional. A number of respondents sought further detail such as detailed workflows for the proposed solution and impacts from a cost perspective.

3.1.7.4. ASX response regarding corporate action services

Given the strong feedback that this functionality is delivered mixed with concerns regarding the impact and risk to CHESS replacement project delivery, ASX proposes to continue to work closely with industry in 2025 to determine the most appropriate way to progress corporate actions functionality through the project. ASX and industry will need to work together to produce a viable business model for corporate actions functionality before proceeding with the technical build, which balances the needs of all key stakeholders and varied commercial and non-commercial factors. For example, the viability of the business model will likely depend on how many Participants will use the functionality, whether their Software Providers have the capacity to build to the requirements of the functionality and sufficient take up by Share Registries. ASX encourages Participants to continue to engage with their Software Providers to understand their position on the functionality. Dependencies on other services such as ReferencePoint, as well as costs, will also be important factors. At this stage, ASX proposes that use of the functionality be optional, given the low level of interest from retail brokers and the functionality potentially being more beneficial to institutional brokers and custodians.

In respect of how the functionality would then be implemented, further pragmatic consideration is also required, including consideration for phasing. ASX proposes to build and test the functionality to support the new corporate action services in scope for CHESS replacement Release 2. However, ASX intends to work with industry to agree on the most appropriate go-live timing while balancing implementation risk for Release 2 as a whole. For example, one option could be to implement shortly after Release 2 go-live, acknowledging the need to continue momentum, effort and industry focus.

Further analysis and engagement will also be required to determine the appropriate payment channel to support the functionality, and how refunds would be processed.



3.1.7.5. ASX response on ability to transmit additional corporate action distribution information

Given the strong feedback supporting the provision of additional corporate action distribution information, ASX plans to provide this functionality in Release 2. However, given industry concerns regarding the size and scope of the change, ASX plans to limit the functionality to notifications of distributions in securities only (e.g. bonus issue or dividend reinvestment plan). This will be delivered through the enhancement of an existing message flow. The provision of information in relation to cash distributions, as identified by CHESS Users in the BDWG, is contingent upon the cash payment itself (which under current market structure is paid outside CHESS). As a result, ASX plans to defer the provision of information related to cash distributions from Release 2 and will consider this requirement in the future as well as considering related feedback around the possibility of payments made by Issuers to direct holders being made through CHESS.

3.1.8. Connectivity interfaces and data access

Connectivity interfaces and data access refers to the connectivity interface and data access options available in the CHESS replacement system. In the consultation paper, ASX proposed to streamline connectivity and data access as part of the CHESS replacement system, by offering:

- ISO 20022 over Advanced Message Queuing Protocol (AMQP) only, to replace the proprietary CHESS EIS protocol as the core connectivity interface for CHESS Users (except for AMOs, who will use the FIX messaging interface in Release 1);
- A User Interface available to all CHESS Users; and
- An API for specific data access.

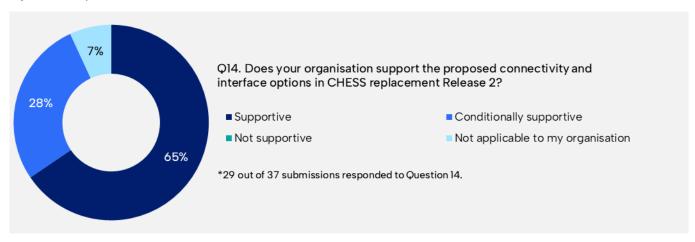
ASX sought feedback on whether organisations supported the proposed connectivity and interface options, their interest in using an optional data API (if offered), and (if interested) what they might use the data API for.

3.1.8.1. Feedback

Feedback on proposed connectivity and interface options

The majority of responses to Question 14 were supportive (65%), a further 28% were conditionally supportive and 7% not applicable (Figure 14).

Figure 14: Responses to Question 14*



Respondents were broadly supportive of the approach to connectivity and interface options, with the basis for this support for many respondents being the alignment to global standards (ISO 20022 over AMQP).



A small number of respondents raised the need for the proposed approach to be cognisant of regulatory requirements around resilience, and that regulatory requirements such as CPS230 potentially impact many Clearing and Settlement Participants. A small number of submissions noted the importance of Participants having an alternate method for submitting transactions that is capable of processing high volumes of settlement traffic for the purposes of Business Continuity Planning (BCP).

A small number of respondents were also interested in more information on costs, particularly in relation to the data API. Specific to API, one submission noted that having to use an API to access holding balance data was undesirable, citing additional cost and support requirements.

One respondent requested to use data paths through Amazon Web Services (AWS PrivateLink) to connect to CHESS replacement.

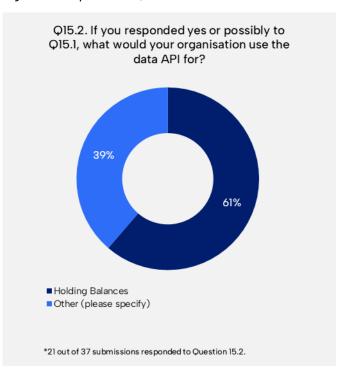
Interest in using optional data API, and for what purpose(s)

Regarding interest in using an optional API, half the responses to Question 15.1 stated possibly (50%), 27% said yes, 17% had no current intention and 6% not applicable (Figure 15). In terms of what those organisations who indicated that they would, or would possibly, use the data API were interested in using it for, a majority of respondents to Question 15.2 indicated they would use it for holding balances (61%) and a number of other suggestions were also made (Figure 16).

Figure 15: Responses to Question 15.1*



Figure 16: Responses to Question 15.2*



Feedback indicated interest among respondents in using the optional data API. Of those submissions that suggested that they would, or possibly would, use an optional data API, they highlighted influencing factors to their take up of an API including cost implications; longer term ability to push and pull data; better real-time monitoring capabilities for Participants; and the ability to add or discuss use cases over time. A number of submissions also suggested a dependency on support from Software Providers. There were also recommendations to take a flexible approach, and questions around the type of data, services and use cases that would be available (for example operational or analytics data).



In addition to holding balances, respondents provided feedback on other potential use cases for the data API, as listed in Table 2 below.

Table 2: Suggested use cases for optional data API

End-of-day reports	Intra-day ad hoc queries	Near real-time streaming
 CEBs, including historical CEBs (corporate action data, with possible extension to settlement lists and trade lists) standing instructions (e.g. payments, DRP if supported) cash market margin reporting netting (NNDP), e.g. net obligations on a daily basis broker sponsored holdings and SRN holdings (noting a need to be able to lock to ensure non-redundant query) corporate action status for holdings, and other sub-position information 	 CEBs, including historical CEBs (corporate action data, with possible extension to settlement lists and trade lists) holder information reconciliation and source of truth purposes historical holding balances (for performance/valuation/reconciliation) broker sponsored holdings and SRN holdings (noting a need to be able to lock to ensure non-redundant query) corporate action status for holdings, and other sub-position information 	 continuous netting market trades holder information registration details (for new HINs where the Share Registry does not have a balance)

3.1.8.2. ASX response

Based on the feedback received, ASX plans to proceed with the connectivity interfaces outlined in the consultation paper (i.e. AMQPI.0 and a CHESS User Interface). Data access will be available via ISO 20022 message-based reporting for core use cases, and supplemented by an optional data API for go-live of Release 2. The API will be complementary to message-based reports and could offer data streaming and/or data query.

The use of ISO 20022 over AMQP will follow ISO standards. Where possible, aligning to global ISO 20022 messaging standards has been, and will continue to be, ASX's principal approach. Given that use of the data API will be optional, ASX confirms that message-based reports providing holding balances will continue to be provided.

ASX acknowledges the feedback around the importance of having an alternate processing capability distinct from normal failover and recovery as part of BCP. ASX intends to provide a file-based interface for ISO 20022 messages that can be used in a BCP scenario (aligned to the BCP approach for AMO FIX messaging in Release I and the existing CHESS EIS section 12 capabilities).

See section 3.1.3 for ASX's response on fee changes.

ASX will also explore the viability of AWS PrivateLink for network connectivity where both CHESS and the user are operating with AWS, and will continue to progress this matter via the Technical Committee.

Specific to data API, ASX proposes to continue to work with industry to understand use cases and latency requirements. Given that this is new functionality for CHESS replacement, ASX will consider the approach to implementing this functionality to establish whether each use case requires streaming or ad hoc (request/response) capabilities. In addition, ASX plans to continue to provide message based reporting via ISO 20022, as replacement for CHESS EIS reporting messages. ASX acknowledges the importance of continuing to evolve the service based on the needs of the industry, both in time for Release 2 go-live and beyond.

ASX notes that the supporting technology for the data API may be different depending on the use cases and services. ASX anticipates providing further clarity on the most suitable technology to support each use case and service.



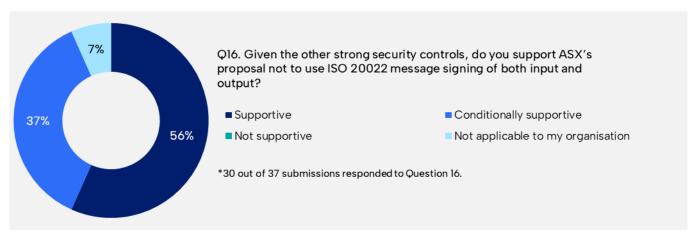
3.2. Technical scope of Release 2

Technical scope encompasses the essential features and requirements that will seek to ensure that the CHESS replacement system will have high security, operational reliability and scalable capacity. In the consultation paper, ASX outlined its proposed approach to security, resilience, scalability and networking for CHESS replacement. In relation to security controls for the CHESS replacement system, ASX sought feedback on its proposal not to use ISO 20022 message signing for inbound and outbound messages.

3.2.1. Feedback

The majority of responses to Question 16 were supportive (56%), a further 37% were conditionally supportive and 7% not applicable (Figure 17).

Figure 17: Responses to Question 16*



All respondents that provided feedback on ASX's proposal not to use ISO 20022 message signing for inbound and outbound messages were broadly supportive of the approach. Feedback in support of the approach included:

- the use of mutual Transport Layer Security (TLS) aligned with connectivity approaches across other global market infrastructure assets;
- acknowledgement of the importance of strong security controls; and
- understanding of the rationale not to apply ISO signing.

Two Clearing and Settlement Participants noted their support of the proposed approach was on the basis that the controls outlined by ASX in the consultation paper would be or remain in place, and one respondent recommended an audit review of ASX's CHESS Hardware Security Module (HSM) management procedures and related self-service certificate portal.

3.2.2. ASX response

Based on the feedback received, ASX intends to proceed with its proposal not to use ISO 20022 message signing for inbound and outbound messages for the CHESS replacement system.

Security controls planned to be in place for the CHESS replacement system include:

- continuation of use of private dark fibre network, IP validation and binding to TLS credentials, and full auditing (session login/logout, message history); and
- introduction of ASX Net network level authentication and encryption using MACsec, and mutual TLS for application level authentication, integrity and encryption.

ASX will consider the recommendation for an audit review of ASX's CHESS HSM management procedures and related self-service certificate portal.



Release 2 timeline and implementation approach





4. Release 2 timeline and implementation approach

This section summarises feedback received and outlines ASX's response to feedback on the Release 2 timeline (section 4.1) and implementation approach (section 4.2).

4.1. Release 2 timeline

ASX sought feedback on the proposed timeline for Release 2 (as published in the consultation paper), including key delivery and implementation activities. The proposed timeline included a Release 2 go-live range in 2029 and ASX indicated that it expected to communicate the target go-live date to the industry with at least 12 months' notice. ASX also sought feedback on months to avoid for Release 2 go-live.

4.1.1. Feedback

ASX received no specific feedback in relation to the proposed Release 2 go-live range in 2029, subject to industry readiness. Responses to consultation were varied in relation to the proposed phases of the Release 2 timeline. While some respondents provided support for the proposed timeline, others indicated concerns in relation to compressed timelines and overlapping testing activities, as well as the potential need for additional time to cater for defects and complete the changes to their internal or vendor-supported up and down stream integrated systems. Some respondents requested further details on the proposed changes and expected test phase activities to more accurately estimate the time required to complete each test phase. Conversely, two respondents recommended reducing the duration of the Release 2 timeline. Of those two responses, one specifically suggested that the industry would only require 18–24 months after the publication of all of the technical specifications to complete the build, test, and implementation phases.

Based on the feedback to Question 17 regarding months to avoid for Release 2 go-live, May and August appear to be the least challenging months for industry to go-live (Figure 18). Most respondents recommended avoiding calendar and financial year-ends. Other suggested periods to avoid included holiday periods (including peak holiday periods for offshore teams), calendar quarter ends, corporate half and full year result periods and corporate action periods, regulatory reporting periods, and annual general meeting season.



12

Figure 18: Responses to Question 17*

2

4

8

August September October November December

0

24

26

28

30

20



4.1.2. ASX response

ASX has made the below adjustments to address industry feedback regarding the time provided for Software Provider and CHESS User test phases:

- Adjustment to the commencement of Software Provider Build and Test phase;
- Introduction of industry timeline checkpoints;
- Adjustment to commencement and duration of Operational Readiness phase;
- Reflection of the period where CHESS User integrated upstream/downstream system analysis and development is to occur on the timeline;
- Adjustment to Dress Rehearsals and Parallel Test phase; and
- Clarification of overlapping test phases.

While at this time ASX is working towards a potential go-live for Release 2 between April and December 2029, ASX notes that the go-live range is subject to industry readiness which will continue to be monitored as the project progresses.

Software Provider Build and Test phase

The Release 2 Software Provider Build and Test phase is now scheduled to commence in Q1 2026 rather than Q4 2025, to minimise overlap with Release 1 activities. Given that the timing for publication of the associated documentation remains unchanged, delaying the commencement of the Software Provider Build and Test phase provides Software Providers an additional three months to assess the ISO 20022 schemas and functional and technical specifications in preparation for the Software Provider Build and Test phase.

Industry timeline checkpoints

ASX proposes to introduce two industry timeline checkpoints in response to feedback requesting further detail to accurately estimate the scope and effort required to implement the required changes. The checkpoints are designed to gauge industry progress and feedback on the ability to continue meeting the Release 2 project timeline after further detail has been provided in the relevant Release 2 industry testing documentation.

• Industry timeline checkpoint 1

ASX proposes that the first timeline checkpoint will commence following the publication of the Release 2 Industry Test Approach document, which aims to provide the industry with a greater understanding of the industry test phases, activities and entry and exit criteria required for the phases. It is intended that it will include details on the environments, tooling and test data that will be available to support testing activities.

• Industry timeline checkpoint 2

ASX proposes that the second timeline checkpoint will follow the release of all functional and technical specifications, which will provide the industry clarity on the scope of change required to their systems and processes.

The intention is that at these checkpoints, the industry will have been provided the information required to form a view and advise ASX on whether there are any material risks or issues relating to their ability to continue meeting the Release 2 project timeline. Where an organisation identifies any material risks or issues, ASX requests to be informed as early as possible so that ASX can work with the organisation to understand and/or mitigate the risk(s) and assess the potential impact to the overall schedule. ASX intends to provide further information on the timeline checkpoints via the ASX Business Committee in 2025.

Operational Readiness phase

ASX has changed the commencement and reduced the duration of the Operational Readiness phase to allow more time for CHESS User testing prior to commencing operational readiness activities. The Operational Readiness phase is now scheduled to commence in Q2 2028 instead of Q4 2027, and will now run for three months instead of six



months. ASX will work with each CHESS User to schedule their Operational Readiness activities within the proposed three-month period.

CHESS User integrated upstream/downstream system analysis and development

ASX has updated the Release 2 timeline to illustrate where CHESS User upstream and/or downstream system analysis and development is expected to occur. CHESS User integrated upstream and/or downstream system analysis and development will follow the release of Functional and Technical Specification documentation and commencement of the Software Provider Build and Test phase. This allows time for Software Providers to analyse the specifications and determine what changes are required to their software to integrate with the CHESS replacement system, and then determine what changes are required to their software's external interfaces. ASX anticipates that once Software Providers have determined and communicated the changes required to their external interface specifications, CHESS Users can commence their impact analysis to upstream and downstream integrated systems and progress their development activities (including engaging external vendors for development where required). ASX notes that CHESS User upstream and/or downstream integrated systems do not integrate directly with CHESS. As a result, CHESS Users are responsible for planning and managing their upstream and/or downstream integrated systems. As part of industry readiness tracking, CHESS Users are also responsible for proactively informing ASX of the status and confidence of their upstream/downstream integrated system analysis and development during the recognised period. ASX plans to leverage industry timeline checkpoint 2, as well as ongoing bilateral engagements with CHESS Users to understand if there are risks or issues with the progress of CHESS User upstream and/or downstream integrated system analysis and development.

Dress Rehearsals and Parallel Test phase

ASX has increased the planned duration of the Dress Rehearsals and Parallel Test phase by one additional month, given that the phase has been scheduled with some overlap of end of calendar year holiday period. This change ensures that four full months are provided to complete the necessary activities within the phase.

Clarification of overlapping test phases

ASX acknowledges the concerns raised regarding overlapping industry build and test activities and notes that the time allocated to each phase represents the time period in which industry are to complete necessary activities. Activities are not expected to require capacity for the entire phase. Each phase has a date range for industry to start and end activities, and each organisation may choose when it can and wants to schedule activities within the phase. For example, three months has been allocated for organisations to complete Operational Readiness activities, however the Operational Readiness activities are expected to take approximately two weeks to complete (subject to each organisation's processes). ASX will work with CHESS Users to schedule Operational Readiness activities, noting that they will be able to continue CHESS User testing for the remainder of the Operational Readiness phase, if required.

Figure 19 shows the changes that have been made to the Release 2 timeline in response to consultation feedback.



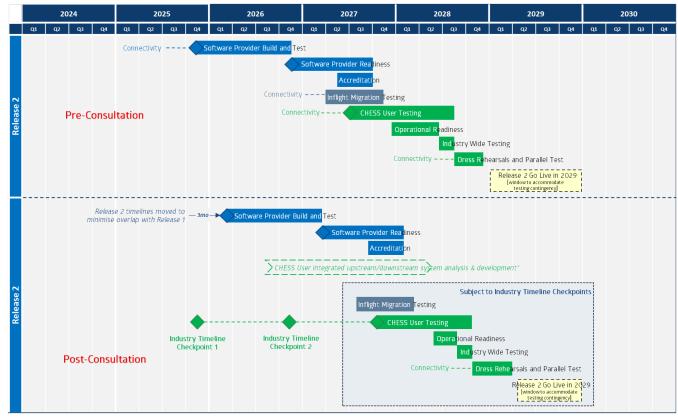


Figure 19: Release 2 project timeline (pre and post consultation)[†]

As the project progresses, ASX plans to continue to seek feedback on industry readiness and material risks or issues relating to their ability to continue meeting the Release 2 project timeline through the industry timeline checkpoints, as well as through ongoing project working groups and bilateral meetings.

ASX will continue to provide further information through the publication of documentation (as set out in section 9), to allow the industry to appropriately plan and prioritise work relating to the CHESS replacement project during the build and test phases.

ASX expects to communicate the target Release 2 go-live date with at least 12 months' notice and will continue to assess the possibility of communicating this earlier in line with industry readiness tracking. While this date will predominantly be driven by industry readiness, ASX will also consider the industry feedback provided regarding the periods to avoid in determining the go-live date.

4.2. Release 2 implementation approach

ASX confirmed its approach to stage the implementation of CHESS replacement over two main releases in its response to consultation feedback on Release 1 in June 2024. While responses to that consultation indicated overall support for this approach, ASX was asked to consider additional staging of Release 2 to further de-risk the implementation. As part of the consultation paper on Release 2, ASX provided a summary of its risk assessment of options to further stage Release 2, which indicated that further staging of Release 2 is likely to materially increase technical complexity, operational risk and delivery risk with little, if any, benefit to industry.

ASX recommended proceeding with implementing Release 2 as one release and sought feedback on this approach.

[†] This timeline may be subject to change due to a range of factors as implementation progresses

^{*} CHESS User upstream/downstream integrated system analysis and development includes both internal and vendor supplied systems (not connected to CHESS) impacted by CHESS interface and messaging changes.



4.2.1. Feedback

The majority of respondents either supported the proposed approach, recognising that alternative approaches to implementing Release 2 as more than one release posed heightened risks, or did not express any concerns about the proposed release structure. Some respondents noted a preference to avoid the process or overheads required to operate and maintain two different systems which would be required if the implementation of Release 2 was split into additional stages. Some respondents also noted the importance of and the need for comprehensive industry testing, multiple dress rehearsals and a rollback plan as critical risk mitigating activities. Further information was requested on the rollback approach and plan.

Some respondents suggested consideration of staging by Issuer, function or Participant, with another small number of respondents suggesting further work was required to identify unexplored implementation approaches or ways to further reduce implementation risk.

Two respondents suggested avoiding scheduling a non-settlement day for cutover to prevent a double settlement day on the first operational day of the new system. Conversely, one respondent suggested the first day post cutover be scheduled as a non-settlement day. Two respondents suggested the first day post cutover be aligned with a public holiday.

4.2.2. ASX response

ASX is proceeding with the implementation of Release 2 as one release, and implementation of the CHESS replacement system over two main releases as planned. The overall risk profile of Release 2 will be mitigated through comprehensive industry testing and readiness activities scheduled prior to go-live, as outlined in Table 3 below. The identification of specific implementation risks and risk mitigation measures has been informed by consultation feedback as outlined above, as well as further industry feedback received through discussions with the Implementation and Transition Working Group.



ASX will mitigate the implementation risk of Release 2 through comprehensive implementation planning and readiness activities, including:

Table 3: Planned implementation risk mitigants

Risk area	Mitigation
Industry readiness delays impacting	 Readiness tracking throughout industry testing to enable the early identification of any lagging indicators or potential issues relating to industry readiness.
go-live	 Contingency planning to consider a comprehensive range of industry readiness scenarios, as well as testing inflight transactions, new transactions and parallel testing comparisons with transactions occurring in existing CHESS.
	• Implementation Dress Rehearsals to replicate go-live cutover activities and validation of the rollback plan.
	Confirmation of organisational readiness through organisational attestations.
	Ability to increase the duration of industry test phases if required by the industry.
Functional issues identified post go-live	Multiple test phases, including Industry Wide and Parallel Testing on production like environments and data.
Technical connectivity	Consistent connectivity and onboarding process for all environments documented in the Release 2 Connectivity Guide.
issues post go- live	Verification of Participant connectivity testing to facilitate weekend go/no-go decision.
Migration issues	Dress rehearsals to replicate go-live weekend processes.
resulting in go-	Inflight migration testing to validate post migration scenarios.
live delays or data issues	Data quality reports and early migration of account data.
Performance issues post go-	Scheduled periods of simulated production volumes during CHESS User and Industry Wide Testing.
live	Software Providers and CHESS Users to conduct interface performance testing in test environments.
CHESS User internal downstream issues	CHESS Users to establish end-to-end environments for CHESS User testing, Industry Wide Testing and Industry Parallel Testing.

ASX plans to continue to work with industry to explore further ways to mitigate the overall risk profile of implementing Release 2 as a single release.

Regarding the additional information requested by respondents on the go-live decision framework and rollback plan for Release 2, ASX will engage with industry stakeholders through the Implementation and Transition Working Group to determine the cutover approach. Following such engagement, details regarding go-live decision-making and the rollback plan will be provided in the Release 2 Cutover and Migration Approach document planned for publication in Q4 2027.



T+1 in the context of CHESS replacement





5. T+1 in the context of CHESS replacement

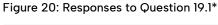
In the consultation paper on Release 2, ASX recommended that if a decision is made to move to a T+1 settlement cycle, T+1 should be sequenced after Release 2 go-live. ASX also proposed that a T+1 go-live date be at least 12 months after the CHESS replacement Release 2 go-live date, and at a minimum 18 months after a decision to transition to T+1. This recommendation was informed by <u>industry responses</u> to ASX's April 2024 <u>whitepaper</u> on considerations for accelerating cash equities settlement in Australia to T+1, a comprehensive evaluation of industry risks and benefits, global experiences with transitioning to T+1 settlement, domestic developments and an assessment of the potential impacts to the CHESS replacement project.

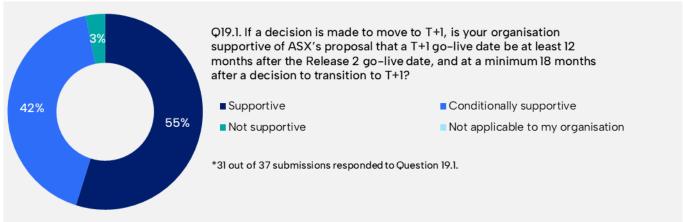
ASX's proposed scope for Release 2 includes functional changes relevant to enabling a transition to T+1. However, there are additional scope items that are currently outside the scope of the CHESS replacement project (such as ETO exercise process review, CMM and introduction of intra-day margining including timing). The timing of these items is not dependent on CHESS replacement.

As part of consulting on Release 2, ASX sought feedback on its recommended approach to T+1 in the context of CHESS replacement, as well as any other factors to be considered in relation to the approach and timeline for a transition to a T+1 settlement cycle.

5.1. Feedback

Responses were almost entirely supportive that a T+1 implementation should occur after Release 2. The majority of responses to Question 19.1 were supportive (55%), a further 42% were conditionally supportive, and 3% not supportive (Figure 20) regarding a T+1 go-live date being at least 12 months after the Release 2 go-live date, and at a minimum 18 months after a decision to transition to T+1.





One respondent noted their preference to implement T+1 prior to Release 2. A small number of respondents noted that their preference was to transition to T+1 sooner than 12 months after CHESS replacement Release 2. Conversely, a number of respondents noted that the suggested minimum 12 month gap between CHESS replacement Release 2 go-live and T+1 may come under pressure, in the event that there are issues with Release 2 go-live. Respondents considered that there would need to be a period of stabilisation post go-live, with some submissions suggesting 15 or 18 months between Release 2 and T+1. Another submission suggested a period of 18-24 months after a decision to transition to T+1 would be required.

From a global perspective, a number of respondents referred to international monitoring and learnings, both within the Asia-Pacific region and further abroad. Specifically, the importance of aligning with New Zealand was noted. It was also acknowledged that Australia could become an outlier among global peers the longer it stays on T+2.



Consistent feedback was received across submissions noting the importance of Release 2 including all functional upgrades required to support T+1, to minimise re-work, re-testing and delivery risk (acknowledging that respondents have previously indicated that T+1 should be implemented in the CHESS replacement system and not in current CHESS). One submission also noted the importance of the CHESS replacement system being ready for T+1 from a non-functional perspective (such as agreement on batch settlement timing and operating hours), again to minimise further re-build and test requirements. Respondents acknowledged resourcing constraints as well as the importance of aligning to Australia's debt market. A number of respondents noted challenges for ETF Issuers where Australia's settlement cycle (currently T+2) is mis-matched compared to global markets such as USA. Should a decision be made to move to T+1, one submission noted their expectation of a reduction in capital required to be held at the clearing house and reduced clearing fees.

5.2. ASX response

Based on feedback received, ASX intends to proceed on the basis that if a decision is made to move to T+1, it should occur after implementation of CHESS replacement Release 2, with the T+1 go-live date being:

- at least 12 months after the CHESS replacement Release 2 go-live date; and
- at a minimum 18 months after a decision to transition to T+1.

ASX notes that both time parameters are indicative of minimum timeframes and could be extended based on appropriate consideration for stability and post go-live support for Release 2. Industry readiness will also be considered as part of determining these timeframes and ASX will engage closely with industry in this regard.

ASX will also engage with the Reserve Bank of Australia (RBA), the Australian Securities and Investments Commission (ASIC) and government before any decision is made regarding T+1.

In the meantime, ASX will continue to work with industry regarding functionality required to support a transition to T+1. Where this can be progressed via CHESS replacement², ASX will continue to develop and test in preparation for Release 2 go-live. For functionality that requires progress outside of CHESS replacement or where further consideration and engagement is required, ASX proposes to continue to work with industry (via the ASX Business Committee's T+1 Working Group, BDWG and other relevant forums) to support development, testing and readiness. Regarding clearing fees, subject to the outcomes of ASX's consultation on the <u>Cash Equities Clearing</u>, <u>Settlement and Issuer Services Pricing Policy</u>, ASX plans to continue its engagement with industry.

ASX will continue to monitor global developments regarding settlement cycle compression, as well as closely engage with the New Zealand Stock Exchange (NZX). Both NZX and ASX acknowledge the importance of close alignment. ASX will continue to report on global developments and insights as a standing agenda item at quarterly meetings of the ASX Business Committee, to inform ongoing industry engagement on matters relating to transitioning to T+1.

² Refer to Table 16 in ASX's <u>Consultation Paper</u> for the status of each T+1 scope item as related to CHESS replacement.



Interoperability





6. Interoperability

Interoperability refers to enabling market operators, clearing and settlement facilities and other providers to access and interoperate with the individual clearing, settlement and subregister services using standardised interfaces.

Given that there are many ways that a new clearing or settlement facility may enter the Australian cash equity market, there are many possible models for interoperability to be considered as part of the CHESS replacement project. In the consultation paper ASX proposed that the CHESS replacement system will have the technical capability to support multiple scenarios that provide the broadest support for different interoperability models.

In the absence of a new clearing or settlement entrant to test with, and to insulate the industry from testing efforts, ASX proposed to limit testing to a separately configured version of the CHESS replacement system and will not require industry participation. This approach may be revisited in the event that a new entrant emerges.

ASX sought feedback on the proposed approach to interoperability for CHESS replacement.

6.1. Feedback

Respondents to the consultation paper supported ASX's proposed approach to interoperability and did not express any concerns with the approach, with the exception of one respondent. Three respondents noted that the move to ISO 20022 messaging standard was a beneficial step forward in relation to interoperability. Another respondent was specifically supportive of the approach to limit test effort to ASX in the absence of a new entrant.

The following feedback was also provided:

- Further industry engagement would be required in the event of a committed entrant; and
- A request for ASX to publish its test results to provide broader industry confidence, and for the separately configured version of CHESS replacement to be compatible with the version that is implemented into production for go-live of Release 2.

The respondent that did not support ASX's proposed approach asked ASX to define the interfaces between competing facilities at this point in the project, irrespective of whether there was a new entrant to interoperate with.

6.2. ASX response

Given overall support from consultation responses, ASX plans to proceed with the proposed approach to interoperability for CHESS replacement as outlined in the consultation paper.

ASX proposes to continue to engage with industry, including sharing the results of its interoperability testing in an appropriate manner, and further communication and engagement would occur in the event of a committed entrant.



Release 2 industry testing





7. Release 2 industry testing

In the consultation paper, ASX set out the proposed Release 2 industry test approach, including the various industry test phases and associated test environments included in the Release 2 project timeline for Software Providers and CHESS Users. Detail was provided regarding each of the below test phases, along with information on the industry readiness documentation:

- Software Provider Build and Test
- Software Provider Readiness
- Software Provider Accreditation
- Software Provider Inflight Migration Testing
- CHESS User Readiness
- CHESS User Inflight Migration Testing
- CHESS User Operational Readiness
- Industry Wide Testing
- Industry Parallel Test

As part of the consultation, ASX sought feedback on the proposed time allocation for Software Providers to complete their build and test in preparation for accreditation, as well as any additional feedback on testing scope, duration and approach. ASX also sought feedback on the proposed time allocation for CHESS Users to complete their testing activities in preparation for operational readiness, as well as any additional feedback on testing scope, duration or approach.

7.1. Feedback on the proposed Release 2 industry test phases for Software Providers

Feedback was generally supportive of the scope and structure of the proposed Software Provider test phases. Respondents did not request additional or alternative test phases. Some respondents noted that, without detailed specifications, they were still not clear on the changes required to their solutions and could not estimate the work required.

One respondent sought additional time to complete the build and test activities before moving into the Software Provider Readiness phase. Another respondent suggested combining Software Provider Readiness and CHESS User Operational Readiness into a single phase to reduce duplication for in-house developers. Some respondents suggested that additional time may be required to cater for defects and allow for integration and testing of vendors systems. There was also feedback suggesting more time was required between the publication of the ISO 20022 schemas, functional and technical specifications and the commencement of software build.

Clarity was sought on when high volume testing could occur, with an assumption that it could not be completed until the Industry Wide Testing phase. One respondent recommended the inclusion of an industry wide end-to-end system test to uncover any issues undetectable in individual CHESS User testing.

Another respondent recommended incremental accreditation to enable early access to accredited software for their Participants to build and test against. Another respondent suggested structuring accreditation and testing in a way that separates core and optional features.

Feedback from two respondents also highlighted the preference for extended hours before CHESS commences endof-day processing to allow overseas test teams sufficient time to complete test scenarios during their business hours before end-of-day processing commences. ASX also notes a request for sufficient test scenarios to enable thorough testing of different corporate action events.



7.2. Feedback on the proposed Release 2 industry test phases for CHESS Users

Feedback indicated general support for the scope and structure proposed for CHESS Users to complete testing, with no respondents requesting the introduction of additional or alternative test phases.

CHESS Users provided mixed feedback regarding the impact of the required changes. One respondent noted that for their organisation, Release 2 was merely a messaging upgrade. In contrast, another organisation indicated that the changes associated with Release 2 would have significant business implications due to the complexities of their integrated systems.

A number of submissions sought further details on the timing and design of the phases, with some noting that the timeline to complete the required activities appeared compressed. One response acknowledged the challenge for the industry needing to meet their obligations within set timeframes. They also emphasised that any delays or issues faced by one organisation may affect the overall timelines.

One respondent requested to increase the duration of the CHESS User Testing phase, noting their desire to only commence testing on accredited software. Conversely, ASX also received feedback recommending less time for CHESS User testing, suggesting a maximum of two years from the finalisation of rules and functionality was more than sufficient.

One response asked whether sequencing Operational Readiness after Industry Wide Testing had been considered. Additionally, some respondents recommended extending the Industry Wide Testing and Parallel Test phases. ASX also received feedback from one respondent to reduce the Operational Readiness phase on the basis that core processing and logic should remain unchanged in upstream systems.

ASX also received feedback relating to the resourcing impact of supporting concurrent overlapping activities during the CHESS User Testing and Operational Readiness phases. Another respondent noted their organisation's intention to resource test activities using Business As Usual (BAU) staff, highlighting that workload management will need to be considered.

Feedback also noted that more information on dress rehearsals and parallel testing activities is required before an informed response can be provided. One respondent noted that there were potential impacts to weekend production obligations when these activities are scheduled, highlighting the importance of scheduling dates well in advance.

Several responses recommended that testing be automated where possible, with two responses highlighting the need for automated test tools. One respondent sought clarity over AMOs involvement within the CHESS User test phases.

7.3. ASX response

As detailed in section 4, ASX has made changes to the Release 2 schedule to accommodate further industry input into readiness planning and activities. At a high level, the timeline changes detailed in section 4 include:

- adjustment to commencement of Software Provider Build and Test phase;
- introduction of industry timeline checkpoints;
- adjustment to commencement and duration of the Operational Readiness phase;
- reflection of the period where CHESS User integrated upstream/downstream system analysis and development is to occur on the timeline;
- adjustment to Dress Rehearsals and Parallel Test phase; and
- clarification of overlapping test phases.



Furthermore, given the general support for the proposed Release 2 test approach and associated test phases, ASX will proceed with the approach as planned. It is intended that the CHESS replacement industry test environments will replicate the production environment as closely as possible. ASX also plans to provide test tools that will enable parties to test their software independently and will work with the industry to understand the test tooling requirements of each industry cohort via the Implementation and Transition Working Group. Once CHESS Users have completed their independent testing, they will be able to test with each other without the use of tools to simulate production-like processes. ASX proposes that the testing with other parties will be supported in the CHESS User Testing phase for those organisations that are ready, and all CHESS Users will need to test with each other without test tools in the Industry Wide Testing phase, where industry wide end-to-end system testing is expected.

ASX recognises the benefit of adjusting CHESS operating hours in the test environment to support offshore development teams, but also understands the impacts that any adjustment would have on development teams operating on domestic business hours. ASX plans to work with industry to explore what adjustments can be made to the CHESS test environment operating hours and will seek to implement feasible changes supported by broad industry consensus.

ASX plans to work with organisations developing in-house software who wish to complete Software Provider and CHESS User readiness activities concurrently. ASX does not plan to incrementally accredit Software Provider software as it is expected that Software Providers will continue to refine their code throughout the build and test and readiness phases. However, ASX does intend to provide anonymised readiness dashboards to provide visibility of industry activity and progress throughout the industry test phases.

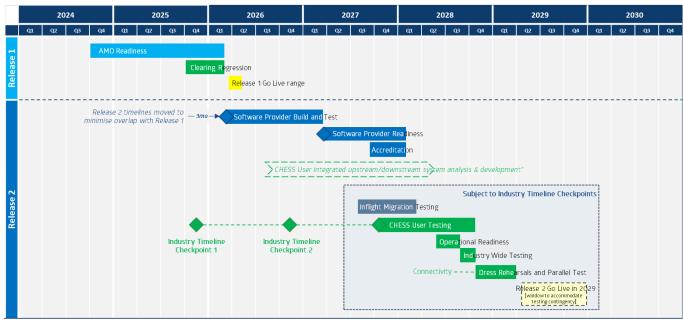
ASX proposes that high volume testing can be conducted in the readiness phases and expects that it will be completed before commencing Industry Wide Testing. ASX intends to continue to actively engage with the industry via the Implementation and Transition Working Group to understand the industry's testing requirements in Release 2. Engagement covering test data, test cases, test tools, activities and entry and exit criteria is targeted to commence in early 2025, the outcomes of which will be included in the Release 2 Industry Test Approach document planned to be published in Q3 2025. Engagement covering other priority activities including parallel testing and cutover is planned to be scheduled in accordance with the development of the associated guides for those test phases. More information on the Release 2 documentation is provided in Section 9 of this paper. ASX will also work with AMOs to establish their involvement in coordinated industry test and readiness phases, which will be documented as part of the Release 2 Industry Test Approach document.

ASX reiterates the importance and expectation that relevant stakeholders have sufficient resources (relative to the size, scale and complexity of their organisation) prioritised to analyse and deliver their required changes in accordance with the project timeline, and encourages early participation in all activities and phases to mitigate the risk of project delays. Where an organisation identifies any material risks or issues, ASX requests to be informed as early as possible so that ASX can work with the organisation to understand and/or mitigate the risk(s) and assess the potential impact to the overall schedule.

Figure 21 represents the updated Release 2 timeline following industry feedback, with further detail including the revised Release 2 industry test phases dates provided in Table 4.



Figure 21: Release 2 project timeline (post consultation)[†]



[†] This timeline may be subject to change due to a range of factors as implementation progresses.

Table 4: Planned Release 2 industry test phases

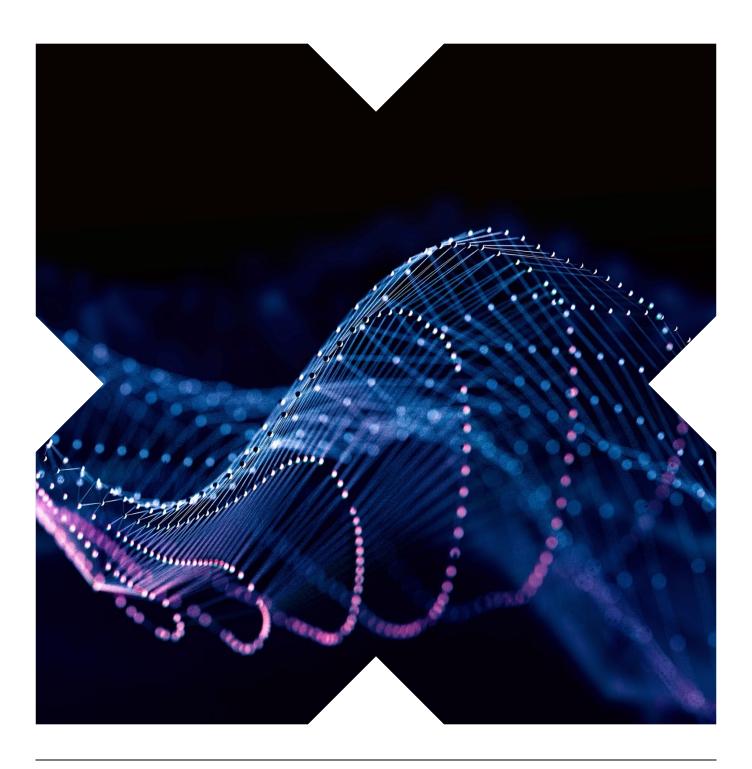
Planned industry test phase	Who is involved	Proposed timing (in consultation paper)	Revised indicative timing (post consultation)	
Software Provider Build and Test	Software Providers*	Nov 2025 – Nov 2026	Mar 2026 – Mar 2027	Commencement - changed by 3 months to reduce overlap with - Release 1 activities
Software Provider Readiness	Software Providers*	Nov 2026 – Sep 2027	Mar 2027 – Jan 2028	
Software Provider Accreditation	Software Providers*	May 2027 – Sep 2027	Sep 2027 – Jan 2028	
CHESS User Readiness	CHESS Users	Jul 2027 – Jul 2028	Oct 2027 – Oct 2028	Timing of phase subject to change based on industry timeline checkpoints
Inflight Migration Testing	Software Providers* CHESS Users	Apr 2027 – Aug 2027	Aug 2027 – Feb 2028	
Operational Readiness	CHESS Users	Dec 2027 – May 2028	Jun 2028 – Aug 2028	
Industry Wide Testing	CHESS Users	May 2028 – Jul 2028	Aug 2028 – Oct 2028	
Implementation Dress Rehearsals	CHESS Users	Aug 2028 – Nov 2028	Nov 2028 – Mar 2029	
Industry Parallel Test	CHESS Users	Aug 2028 – Nov 2028	Nov 2028 – Mar 2029	

^{*} Software Providers include both those CHESS Users developing in-house systems as well as external vendors.

^{*} CHESS User upstream/downstream integrated system analysis and development includes both internal and vendor supplied systems (not connected to CHESS) impacted by CHESS interface and messaging changes.



Release 2 go-live readiness





8. Release 2 go-live readiness

In the consultation paper, ASX outlined proposed Release 2 cutover weekend activities, including ASX data migration and reconciliation activities, CHESS User change deployment and verification, final go/no-go checkpoint and a contingency period. Release 2 cutover weekend activities are planned to commence on a weekend following the completion of regular end-of-day Friday activities to preserve standard processing for the last business day of current CHESS. The sequence and timing of Release 2 cutover activities was proposed to be validated through a series of planned Implementation Dress Rehearsals prior to the go-live of Release 2.

As part of the consultation, ASX sought feedback on testing scope, duration and approach in the context of supporting CHESS Users with their go-live readiness.

8.1. Feedback

Across submissions, feedback highlighted the importance of Implementation Dress Rehearsals, ongoing industry engagement to ensure confidence in the cutover process and consideration of the unique needs/models/edge-cases of Participants. There was also a general desire from some respondents to better understand the industry rollback approach and the need for timely access to documentation and detailed information. Automated test tools were also suggested.

8.2. ASX response

Given consultation feedback was strongly supportive, and no concerns were raised on the proposed Release 2 golive approach, ASX will proceed with the approach as planned. As part of the broader changes to the Release 2 timeline, ASX plans to leverage the industry timeline checkpoints to evaluate the need to make amendments to the go-live approach in line with industry feedback at those times.

There will be a minimum of three Implementation Dress Rehearsals as part of Release 2 industry testing. Based on the outcome of the first Implementation Dress Rehearsal, ASX may decide to include additional contingency Implementation Dress Rehearsals, if required. ASX will continue to engage with the industry through project working groups to understand and provide clarity on details required for cutover and rehearsals. The publication of Release 2 cutover documentation is planned to commence in Q4 2027, and will likely include communication protocols, validations, roles and expected responsibilities, rollback procedures as well as the details of customer migration reports to be provided.

Release 2 go-live will follow successful industry testing and readiness activities. ASX proposes to engage with industry to establish a go-live decision framework that outlines industry readiness metrics to determine go-live readiness. ASX will continue to actively engage with the industry through project working groups to provide transparency regarding industry readiness and support industry confidence in the delivery of Release 2.

ASX will engage with industry to determine an appropriate Release 2 go-live date, having regard to industry readiness and the feedback on specific periods to avoid. ASX aims to continue to provide regular updates on timelines to help the industry appropriately plan and prioritise work related to the CHESS replacement project during the build and test phases. ASX aims to communicate the go-live date with at least 12 months' notice and will evaluate the potential to provide this information earlier based on industry readiness tracking.



Release 2 industry readiness documentation





9. Release 2 industry readiness documentation

As outlined in the consultation paper on Release 2, ASX will provide project and technical documentation for Release 2, including:

- · Functional specifications;
- ISO 20022 usage guidelines, schemas and sample messages;
- · Operational and user guides;
- · Known issues and defects lists;
- · Forward release plan and schedule;
- Release 2 industry test documentation (refer to Table 5); and
- Other project related collateral and artefacts.

ASX intends to provide Release 2 project and technical documentation on a centralised documentation portal categorised by functional areas and CHESS User types. Project and technical documentation is planned to be developed and released iteratively to coincide with functionality delivery following industry engagement in relevant working groups.

ASX will aim to provide Release 2 industry test documentation at least three months in advance of a scheduled release to an industry test environment and/or the commencement of an industry test phase. Where the timing of any industry test phase changes, ASX will also amend the timing of associated documentation accordingly. A detailed documentation schedule is planned to be communicated as part of the Release 2 Industry Test Approach document as well as forming part of the standing agenda of the Technical Committee.

An updated Release 2 industry testing documentation schedule is provided in Table 5 below.



Table 5: Release 2 industry test documentation*

Document	Purpose of document	Audience	Target publication date
Functional and Technical Specifications	A detailed specification of all ISO messages including message structures, rules and message flow diagrams. ASX will target release of this documentation incrementally in line with the 5 feature drops.	CHESS Users and their Software Providers	Q3 2025 – Q3 2026
Release 2 Industry Test Approach	Describes the approach and responsibilities, timing, entry and exit criteria and expected test outcomes for each industry test phase.	CHESS Users and their Software Providers	Q3 2025
Release 2 Connectivity Guide	Details the technical connectivity requirements to connect to the CHESS replacement system including connectivity method(s), network details and security details.	CHESS Users and their Software Providers	Q4 2025
Failover and Recovery Guide	Provides information on failover testing, covering what components ASX will simulated-fail and proposed frequencies.	CHESS Users and their Software Providers	Ф3 2026
Release 2 Accreditation Guide	Provides an overview of the Release 2 Accreditation phase, including the accreditation process, connectivity scenarios and message scenarios.	CHESS Users and their Software Providers	Q4 2026
Release 2 Guide to Operational Readiness Phase	Outlines the Operational Readiness scenarios including mandatory success criteria.	CHESS Users	Ф3 2027
Release 2 Cutover and Migration Approach	Details the cutover and migration approach, key activities and responsibilities.	CHESS Users and their Software Providers	Q4 2027
Release 2 Guide to Industry Parallel Test	Provides details of key activities and expectations regarding test and scope boundaries, expected results including entry and exit criteria.	CHESS Users and their Software Providers	Q4 2027
Release 2 Guide to Industry Wide Testing	Provides an overview of the Release 2 Industry Wide Test phase, detailing key activities, expected behaviours, scope boundaries and expected outcomes including entry and exit criteria.	CHESS Users	Q2 2028
Cutover Runbook	Provides CHESS Users with details on the tasks, milestones and steps associated with cutover, including planned timing. The runbook will be used in dress rehearsals and refined as required ahead of go-live. Note that this document will also include the steps required to rollback.	CHESS Users	Q2 2028

^{*} Release 2 industry test documentation will continue to be refined and communicated to the industry as Release 2 progresses.



Other matters and next steps





10. Other matters and next steps

10.1. Operating rule changes

ASX plans to consult on the legal arrangements for Release 2 in one consultation (and Release 1 as a separate, preceding, consultation). ASX will seek to minimise changes to existing ASX Clear Operating Rules and Procedures and ASX Settlement Operating Rules and Procedures (together the 'Rules and Procedures'), and use material consulted on in the previous iteration of the CHESS replacement project, where relevant and appropriate. ASX proposes to commence consultation on the draft changes to the Rules and Procedures in Q4 2026 (as opposed to 2027, as stated in the consultation paper). ASX aims to provide as much notice of the final Rules and Procedures prior to go-live of Release 2 as possible.

10.2. Next steps

ASX thanks all stakeholders who responded to the consultation paper as well as those who contributed to the proposals outlined in the consultation paper.

While ASX has set out its plan on how it intends to deliver Release 2, ASX acknowledges that there are aspects of Release 2 that require further industry engagement. Where ASX has indicated in this document that further engagement is required, this will continue through:

- the ASX Business Committee;
- the ASX CHESS Replacement Technical Committee, including pulse surveys;
- Industry working groups, including:
 - Implementation and Transition Working Group
 - Business Design Working Group
 - ISO 20022 Design Working Group
 - AMO Working Group; and
- Targeted bilateral engagement.

ASX will also continue to progress industry discussions on a decision to move to T+1 via the ASX Business Committee, the <u>ASX Business Committee's T+1 Working Group</u> and the CHESS replacement industry working groups listed above, as relevant.

We look forward to working with industry to implement Release 1 and Release 2 of CHESS replacement.



Appendix A – List of acronyms

Acronym	Description
ABN	Australian Business Number
ACN	Australian Company Number
АМО	Approved Market Operator
АМОР	Advanced Message Queuing Protocol
API	Application Programming Interface
ASIC	Australian Securities and Investments Commission
ASX	ASX Limited
AWS	Amazon Web Services
BAU	Business As Usual
ВСР	Business Continuity Planning
BDD	Business Design Document
BDWG	Business Design Working Group
BSP	Bonus Share Plan
СЕВ	Cum Entitlement Balance
CHESS	Clearing House Electronic Subregister System
СММ	Cash Market Margin
CRS	Common Reporting Standard
DRP	Dividend Reinvestment Plan
DvP	Delivery versus payment
EIS	CHESS External Interface Specifications
ETF	Exchange Traded Fund
ЕТО	Exchange Traded Option
FATCA	Foreign Account Tax Compliance Act
FIX	Financial Information eXchange (FIX®) Protocol
HSM	Hardware Security Module
HIN	Holder Identification Number
ISO	International Organization for Standardization
NZX	New Zealand Stock Exchange
RBA	Reserve Bank of Australia
RTGS	Real Time Gross Settlement
Software Providers	Vendors and those developing in-house systems
SRN	Security Reference Number
SSP	Standard Settlement Price



SWIFT	Society for Worldwide Interbank Financial Telecommunication
TCS	TATA Consultancy Services
TFN	Tax File Number
TLS	Transport Layer Security
UI	User Interface
UTI	Unique Transaction Identifier



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