

## CHES replacement

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

August 2024



# Invitation to comment

ASX invites submissions to this consultation paper by 13 September 2024, via:

- an electronic form available [here](#)
- an editable [Excel form](#), submitted by email to [CHESSReplacement@asx.com.au](mailto:CHESSReplacement@asx.com.au)
- email to [CHESSReplacement@asx.com.au](mailto:CHESSReplacement@asx.com.au) in a format suitable to your organisation.

If you would like your submission, or any part of it (including your identity), to be treated as confidential, please indicate this clearly in your submission. ASX will publish all non-confidential submissions (including your identity). Where a submission, or any part of it, is marked confidential, ASX will refer to the content of the submission on an anonymised basis only. ASX will disclose all submissions (confidential and non-confidential) to ASIC and the RBA, and to its primary assurer (pursuant to its CS Facility licence conditions). ASX will not otherwise disclose confidential submissions to any other third party unless we are required to do so by law, or you consent to the disclosure.

ASX is available to meet with interested parties for bilateral discussions.

## Contact

For general enquiries, please contact:

[CHESSReplacement@asx.com.au](mailto:CHESSReplacement@asx.com.au)

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# 1/ Overview

This consultation paper outlines ASX's proposed approach to the second release (Release 2) of the Clearing House Electronic Subregister System (CHES) replacement system.

Specifically, this paper invites 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 CHES replacement; and
- **testing and industry readiness approach** for Release 2.

To help navigate the document, the main sections of the paper are as follows:

Starting with the functional and technical scope of Release 2, section 3 of this paper sets out a number of proposals that have been developed in consultation with industry. The aim is to ensure that the proposed scope aligns with industry expectations.

The next section, section 4, covers a suggested implementation timeline for testing and industry readiness and proposed approach for mitigating key risks. Stakeholders are invited to share views on whether the right considerations have been taken into account and whether the proposed timelines are reasonable for industry to prepare and test against. This section also provides insights around how the implementation approach attempts to decrease risk through a staged approach.

Section 5 of the paper then moves to explore T+1 in the context of CHES replacement, informed by a recent Whitepaper on T+1 which received majority support for an eventual transition. If a decision is made to move to T+1, ASX recommends T+1 be sequenced after Release 2, and proposes that a T+1 go-live date be at least 12 months after the CHES replacement Release 2 go-live date, and at a minimum 18 months after a decision to transition to T+1.

The paper then moves onto ASX's plans to enable the technical foundations for interoperability in section 6, enabling market operators, clearing and settlement facilities and other providers to access and interoperate with the individual clearing, settlement and sub-register services using standardised interfaces.

Industry testing is then discussed in section 7, including the proposed industry test phases. The paper then moves to Release 2 go-live readiness in section 8, where we share a planned approach and what organisations can expect as part of the process. Section 9 provides detail on industry readiness documentation, and section 10 additional context on operating rule and fee changes.

## 1.1 What informed our proposals?

The proposals outlined in this consultation paper are informed by ongoing industry engagement with the CHES Replacement [Technical Committee](#) (Technical Committee) and its working groups, the [ASX Business Committee](#) and the T+1 Working Group. The [Cash Equities Clearing and Settlement Advisory Group](#) has provided strategic high-level input on matters related to the project. These groups will continue to operate and provide useful forums for ASX to consult with industry at various levels.

Feedback received in response to the Consultation Paper on Release 1 of CHES replacement and the T+1 Whitepaper has also informed this paper.

## 1.2 What does Release 2 mean for you?

The impact of the new functionality and technical features proposed for Release 2 is summarised in Table 1 below.

*Table 1: Release 2 impacts*

CHES User	Change	Impact
<b>Approved Market Operators (AMOs)</b>	<ul style="list-style-type: none"><li>No major change from Release 1, noting that AMOs will need to be involved in coordinated CHES User Industry Test phases such as Industry Wide Testing (IWT)</li></ul>	Low
<b>Clearing Participants</b>	<ul style="list-style-type: none"><li>Transition from EIS to ISO 20022 and a new CHES User Interface</li><li>Changes and enhancements to clearing processes considering industry feedback and aligning to international best practice, including continuous netting and position accounts with optional segregation</li></ul>	High
<b>Settlement Participants</b>	<ul style="list-style-type: none"><li>Transition from EIS to ISO 20022 and a new CHES User Interface</li><li>Changes and enhancements to settlement processes considering industry feedback, aligning to international best practice and delivering the technical foundations for T+1</li><li>New corporate action workflows, non-batch DvP settlement</li></ul>	High
<b>Share Registries</b>	<ul style="list-style-type: none"><li>Transition from EIS to ISO 20022 and a new CHES User Interface</li><li>Changes and enhancements to Issuer sponsored workflows to promote automation and modernisation of investor information</li><li>New corporate action workflows</li></ul>	High
<b>Payment Providers</b>	<ul style="list-style-type: none"><li>Transition from EIS to ISO 20022, and a new CHES User Interface</li><li>Introduction of a new payment channel for real time gross settlement</li><li>Automation of Payment Provider authorisation processes in CHES</li></ul>	High

### 1.3. Approach to consultation

The information contained within this paper does not describe or represent the detailed solution design, but is intended to provide sufficient detail on Release 2 to elicit feedback.

We encourage feedback from CHESSE Users<sup>1</sup> and Software Providers (including both external vendors and CHESSE Users developing in-house systems), as well as other interested stakeholders on the proposals outlined within this consultation paper, as well as feedback on other relevant areas of interest or concern.

Responses to this consultation are requested by **13 September 2024**, via:

- an electronic form available [here](#)
- an editable [Excel form](#), submitted by email to [CHESSEReplacement@asx.com.au](mailto:CHESSEReplacement@asx.com.au)
- email to [CHESSEReplacement@asx.com.au](mailto:CHESSEReplacement@asx.com.au) in a format suitable to your organisation.

If you would like your submission, or any part of it (including your identity), to be treated as confidential, please indicate this clearly in your submission. ASX will publish all non-confidential submissions (including your identity). Where a submission, or any part of it, is marked confidential, ASX will refer to the content of the submission on an anonymised basis only. ASX will disclose all submissions (confidential and non-confidential) to ASIC and the RBA, and to its primary assurer (pursuant to its CS Facility licence conditions). ASX will not otherwise disclose confidential submissions to any other third party unless we are required to do so by law, or you consent to the disclosure.

ASX will publish a response to the feedback received from this consultation paper, targeted for Q4 2024. ASX will then progressively release detailed timelines, functional specifications, messaging requirements and other documentation related to the implementation of Release 2.

We invite general feedback on the below questions:

***Q1. Please provide any feedback on the proposed design, scope and schedule for Release 2.***

***Q2. Please provide any feedback on the proposed testing and industry readiness approach for Release 2.***

***Q3. Please provide any feedback on the proposed approach to interoperability for CHESSE replacement.***

***Q4. Please provide any feedback on the proposed timing and approach regarding transitioning to a T+1 settlement cycle (noting that any such transition will not form part of the CHESSE replacement project).***

<sup>1</sup> For the purpose of this consultation, 'CHESSE Users' encompasses: Approved Market Operators (AMOs), Clearing Participants, Settlement Participants, Payment Providers and Share Registries.



# 2/ Background and Objective

## 2.1. Background

ASX is responsible for CHES, the clearing and settlement (CS) system for Australia's cash equities market. CHES was established in 1994 to replace the manual process of clearing and settling transactions in the cash equities market. While CHES continues to serve the Australian market well, ASX is committed to contributing to the modernisation of Australia's cash equities market through the CHES replacement project, to support the market's dynamic nature and respond to evolving needs for scalability, flexibility and innovation.

Following the pause of previous work on the CHES replacement project in [November 2022](#), ASX assessed a number of solution designs and potential technologies. A Request for Information (RFI) was issued to multiple vendors, and stakeholder input was actively sought through the Technical Committee, working groups and other engagement channels.

In November 2023, ASX [announced](#) the selection of the BaNCS for Market Infrastructure (TCS BaNCS MI) product delivered by TATA Consultancy Services (TCS) to replace CHES. The TCS BaNCS MI product is expected to provide:

- **Improved scalability** - high operational and resilience standards while providing improved scalability and the ability to support future market growth as required. The TCS BaNCS MI product is being tested to prove it is capable of exceeding double the future projected stress levels for daily trade registration volumes
- **Staged implementation** - modular design supports a staged rollout across two primary releases, mitigating risks and streamlining the transition
- **Leveraging industry investment** - significant existing workflow development and global messaging standards hold potential for reuse, pending detailed design consultations
- **Interoperability** - modular architecture will enable market operators, clearing and/or settlement facilities and other providers to integrate with clearing, settlement and subregister services using standardised interfaces
- **Innovation-readiness** - the solution can provide for connectivity with alternate technologies, including distributed ledger technologies and other emerging technologies, creating opportunities for new services driven by market demand.

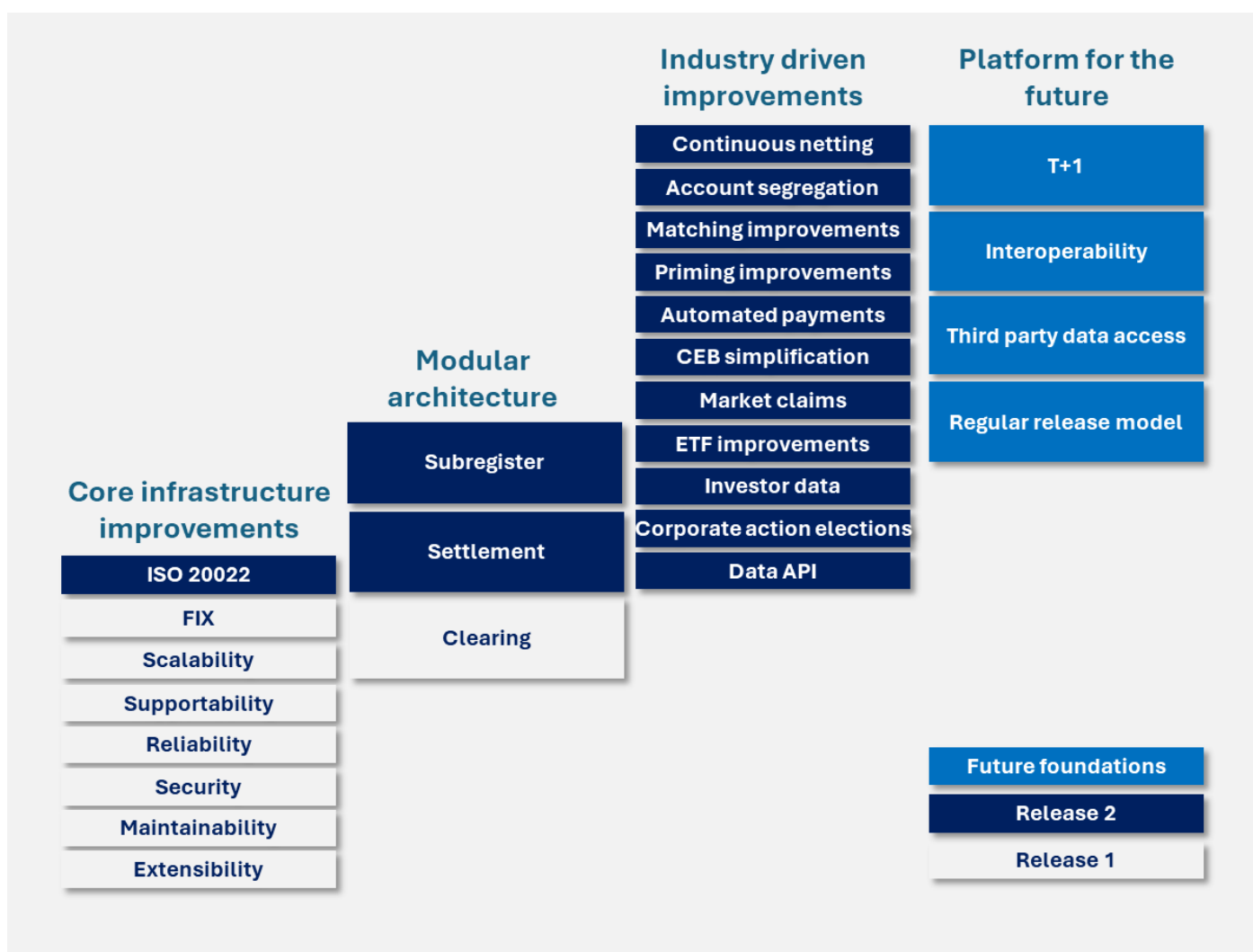
The CHES replacement system will be implemented in two releases:

- **Release 1** will replace the clearing component of CHES and introduce Financial Information eXchange (FIX) messaging for trade registration for all AMOs. ASX [consulted](#) on Release 1 and published its [response to consultation](#) on 28 June 2024. ASX is targeting the implementation of Release 1 between mid-March to end-April 2026.
- **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.

## 2.2. What will CHESS replacement deliver?

Figure 1 below provides an overview of what the CHESS replacement project will deliver.

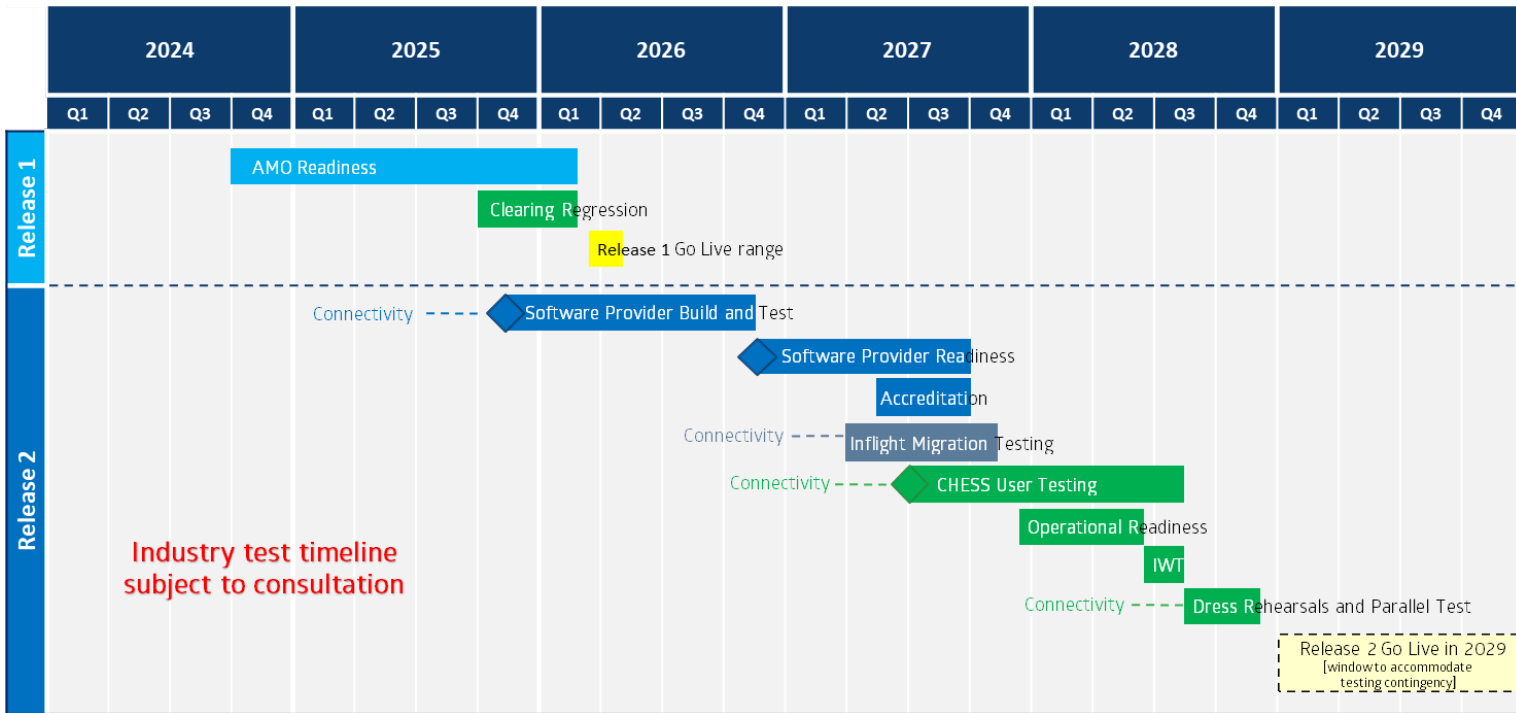
Figure 1: CHESS replacement



### 2.3. When will Release 2 be delivered?

The go-live date for Release 2 and completion of the CHES replacement project will follow successful industry testing, readiness and accreditation of the CHES replacement system. ASX is seeking feedback on the proposed timeline for Release 2 outlined below and in section 4.1.1, which would culminate in a go-live in 2029. ASX expects to communicate the target go-live date to the market with at least 12 months notice. ASX will continue to provide updates on timelines to allow the industry to plan and prioritise work relating to the CHES replacement project during the build and test phases of the project.

Figure 2: Proposed Release 2 timeline



## 2.4. Mitigating risk in Release 2 implementation

In response to public consultation on Release 1, ASX confirmed its approach to stage the implementation of CHES replacement over two major releases. While consultation responses indicated overall support for this approach, ASX was asked to consider additional staging of Release 2 to further de-risk the implementation.

Staging CHES replacement over two releases will reduce overall delivery risk for the project by separating the delivery risk of CHES's two primary components, clearing (Release 1) and settlement and subregister (Release 2). ASX has assessed a range of potential options to further de-risk Release 2, including building backward compatible messages to allow industry to stage their cutover, moving groups of Issuers to the CHES replacement system in stages, and sequencing the movement of functions to the CHES replacement system. However, further staging of Release 2 is likely to materially increase technical complexity, operational risk and delivery risk with little, if any, benefit to industry.

Our assessment found that these options would increase implementation risk and delay completion of the project, deferring the introduction of improved functionality, such as interoperability and other functional improvements. As such, ASX considers that implementing the settlement and subregister functionality (Release 2) as a single release remains the implementation option with the least risk and delay. However, ASX remains open to evaluating further ways to de-risk the implementation of settlement and subregister and is actively engaging with industry on possible options.

## 2.5. T+1 settlement

Earlier this year, ASX published a [Whitepaper](#) seeking industry input on the potential impacts of transitioning to T+1 settlement in Australia, including the options for sequencing. A summary of the industry responses to this consultation can be found [here](#).

For the avoidance of doubt, a decision to move to T+1 has not been made. However, to inform ASX and industry's approach to CHES replacement, four potential T+1 sequencing options are evaluated below (and in more detail in section 5, Table 15 of this paper). These potential options take into account industry feedback received on T+1 against the timetable proposed for CHES replacement as outlined in this consultation paper. Key industry feedback indicated that a transition to T+1 is expected to take between 18-24 months, assuming that sufficient resources can be allocated by industry.

- 1. T+1 immediately, before CHES replacement Release 1:** responses to the T+1 Whitepaper indicated that industry considers the transition to T+1 likely at a future point in time, however the preferred timing of any transition remains uncertain. Given the very recent transition of North America and that Europe and the UK are not likely to transition until after 2027, we share the market's view that there is little appetite to transition to T+1 immediately.
- 2. T+1 between CHES replacement Release 1 and Release 2:** this option would allow for a transition to T+1 more closely aligned to Europe and the UK but would significantly delay CHES replacement Release 2 by around 18-24 months. This would mean enabling T+1 in current CHES which remains viable but more complex, compared to enabling the function as part of the CHES replacement system which can be purpose built for a smoother transition to T+1.
- 3. T+1 at the same time as Release 2:** feedback indicates that there is currently no industry support for the increased risk and effort associated with a simultaneous T+1 and CHES replacement go-live.
- 4. T+1 after Release 2:** this would enable ASX and industry to leverage the functional benefits of the new system and does not delay CHES replacement. However, this would mean a transition to T+1 scheduled for around 2030. **Subject to a decision, this is ASX's proposed and preferred recommendation.**

Options 1 and 2 would result in an around 18-24 month delay to the completion of the CHES replacement project, pushing go-live to around 2031.

If a decision is made to move to T+1, ASX recommends option 4, and proposes that a T+1 go-live date be at least 12 months after the CHES replacement Release 2 go-live date, and at a minimum 18 months after a decision to transition to T+1.

ASX recommends the above having regards to the risks and benefits of moving to T+1 earlier. It attempts to balance the benefits of moving to a shorter settlement cycle, which in the short term serves a narrower group of stakeholders, with the completion of the CHES replacement project, which has broad-ranging benefits across the whole market.

Additional details regarding our proposed approach and the factors considered in developing this approach can be found in Section 5.

As part of this paper, ASX seeks industry feedback on this proposed timetable for T+1. In particular, ASX requests industry feedback on the preference between Option 2 (between Release 1 and Release 2) and Option 4 (after Release 2).

## 2.6. 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. As 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 which need to be considered as part of the CHES replacement project.

ASX has specified interoperability as a requirement for the CHES replacement system to ensure that technology is not a barrier to a new entrant. The new modular architecture for CHES replacement is designed to allow for interoperability and was a key consideration in ASX's selection of the TCS BaNCS MI product, noting that a number of international markets using the TCS BaNCS MI product operate in a landscape of interoperable clearing and/or settlement facilities.

ASX proposes to enable the technical foundations for interoperability as part of the CHES replacement project, informed by interoperability models already used in other global markets. The proposed approach has been discussed with industry through the Business Committee and Technical Committee.

# 3/ Release 2 Functional and Technical Scope

## 3.1. Overview and approach to CHES replacement scope

The primary aim of the CHES replacement project is to replace CHES with contemporary technology, deliver standard messaging and deliver other key functional improvements of interest to stakeholders.

In this section, we outline the key proposed functional and technical scope changes in Release 2 that have been developed in consultation with industry, as well as functionality being retired from current CHES.

## 3.2. Industry engagement on functional scope

The functional scope of Release 2 has been informed by comprehensive industry engagement, as outlined in Figure 3. Following the project pause, ASX sought feedback from Technical Committee members on the scope for (what is now referred to as) Release 2. The scope for the following key functional areas were further refined through three workshops moderated by the Australian Financial Markets Association (AFMA) and Australian Custodial Services Association (ACSA):

- Subregister and Issuer sponsored enhancements and process improvements
- Settlement improvements and enhancements
- Corporate action processing efficiencies

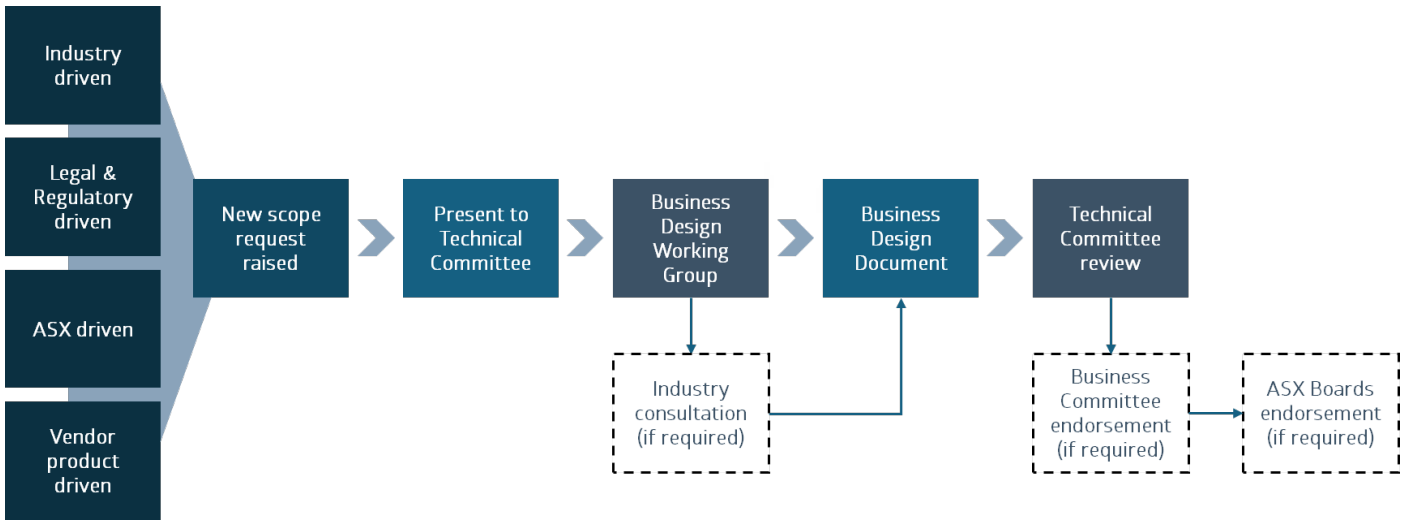
The workshops resulted in 15 industry driven scope objectives which were endorsed by the Business Committee in October 2023 for further evaluation. In November 2023, the ASX Clear and ASX Settlement Boards accepted the Business Committee's recommendation for these scope objectives to be included into the detailed design evaluation and project consultation. Several additional scope requests were identified during this process which are also addressed in this paper. A consolidated list of scope objectives can be found in Appendix B.

After industry alignment on the scope objectives for CHES replacement, ASX facilitated a series of Business Design Working Group (BDWG) meetings with Clearing and Settlement Participants, Share Registries, Software Providers, AMOs, Payment Providers and industry associations to discuss design details in specific functional areas. The output of these sessions is a set of Business Design Documents which capture the industry design considerations in relation to any new or changing functionality.<sup>2</sup> These discussions have informed the proposals outlined in this paper, and the design documents will continue to be refined over the course of the project. ASX will continue to engage with stakeholders through the BDWG over the duration of the CHES replacement project on detailed aspects of scope.

Given the size and duration of the project, ASX acknowledges that there may be a need to revisit scope, with industry, over the course of the project. This may include deprioritising or postponing certain elements or adding new items to the scope. Any scope changes will be progressed via the Technical Committee and/or Business Committee as part of a consolidated backlog (refer to section 3.11.2).

<sup>2</sup> A Business Design Document summarising the design considerations for each scope objective with industry stakeholders has been produced following each working group. The Business Design Documents are available upon request to ASX at [CHESReplacement@asx.com.au](mailto:CHESReplacement@asx.com.au)

Figure 3: Scope origination and industry review process



### 3.3. Functional scope

Considering the modular design of the CHESS replacement system, the functional scope of the CHESS replacement system has been categorised into five broad sections, as shown in Figure 4 and Table 2 below.

Figure 4: Modular design of the CHESS replacement system

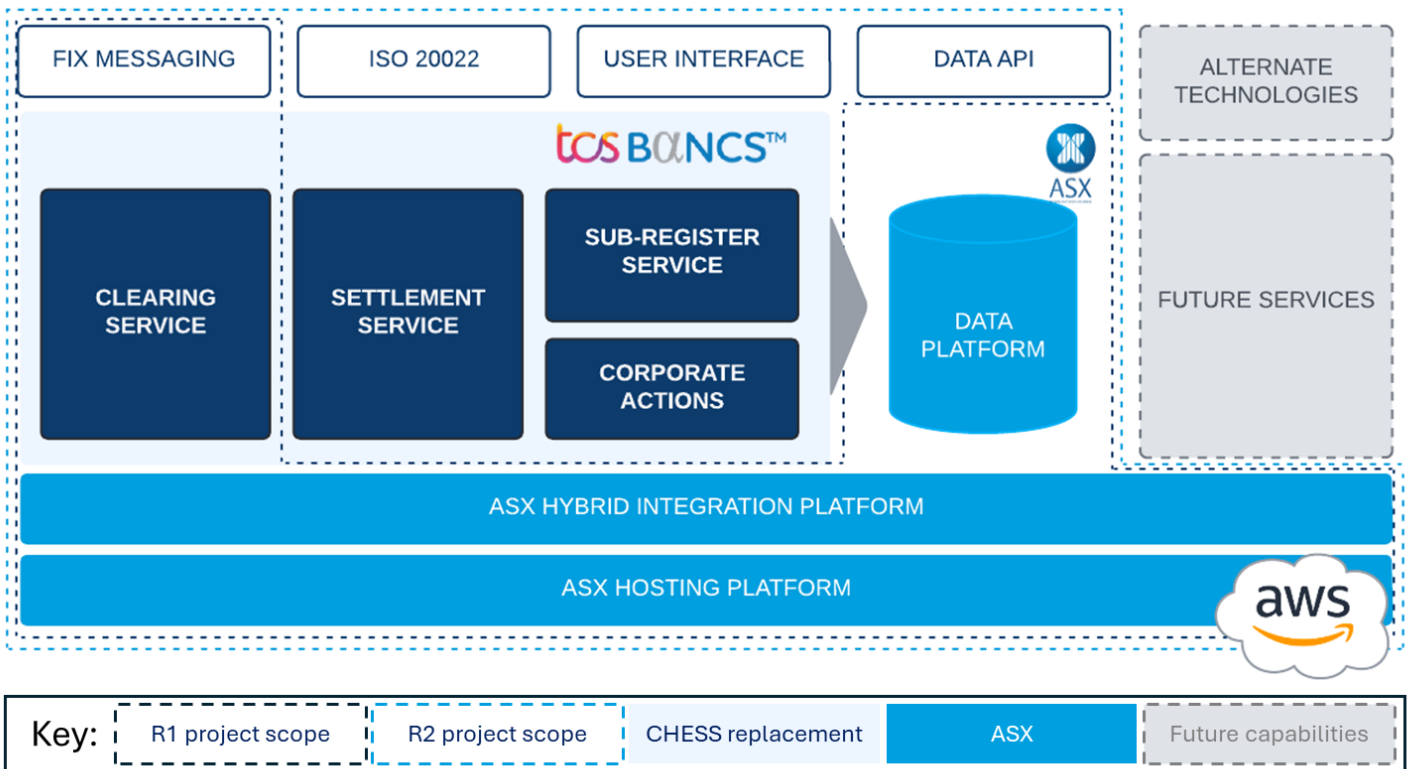


Table 2: Functional scope of CHES replacement

Functionality	Description	Section reference
<b>Clearing</b>	Refers to the processes involved in the validation and registration of trades, including the mechanisms for novation and netting.	3.4
<b>Settlement</b>	Encompasses activities required to transfer ownership of securities and the corresponding payments.	3.5
<b>Subregister</b>	Involves the maintenance of the official record of securities ownership on the CHES 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 CHES Subregister.	3.6
<b>Corporate action services</b>	Includes the processing of events initiated by Issuers that effect their securities and the holdings of investors. This includes dividends, splits, takeovers, and rights issues.	3.7
<b>Connectivity interfaces and data access</b>	Refers to the connectivity interface and data access options available in the CHES replacement system.	3.8

## 3.4. Clearing

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. The scope of Release 1 aims to minimise disruption for Clearing Participants by maintaining the existing CHES message interface and business processes, maintaining a familiar operational environment.

Release 2 is intended to further enhance the clearing component by migrating Clearing Participants to ISO 20022 and enabling improvements to business processes and message simplification as outlined below.

### 3.4.1. Trade registration with continuous netting

Accepted market trades will be registered against the relevant Clearing Participant's position account in the CHES replacement system (see section 3.4.2). Trades novated to the Central Counterparty (CCP) that are eligible for netting will be netted into separate net positions on a continuous basis simultaneously with trade registration. Netting will be performed by trade date,<sup>3</sup> settlement date, security and position account combinations. Trades which are not currently netted in CHES due to timing (for example special markets, exchange traded option (ETO) exercises) will be incorporated into a separate net batch instruction.

Trades that are not eligible for novation and/or netting will be registered in the CHES replacement system as gross unsettled obligations. ASX intends to work with Settlement Participants to evaluate whether scenarios that require securities to be ineligible for netting during a corporate action can be reduced by providing other improvements (such as those outlined in section 3.5.6).

The CHES replacement system will simplify the notification and reporting mechanisms for Clearing Participants, removing the need to separately notify when a trade has been registered (existing EIS 164 message) and when a trade has been netted (existing EIS 138 message). Instead, Clearing Participants will receive a single trade confirmation message indicating eligibility to be included in the continuous net, along with the option to receive daily subscription-based reports providing a consolidated view of netted positions.

<sup>3</sup> Trades that are currently netted on a T+1 basis will be netted separately to T+2 trades (and trades in deferred settlement securities where applicable).



These enhancements aim to improve transparency and efficiency in trade registration and reconciliation, providing Clearing Participants with more timely information.

Continuous netting of trades (instead of an end-of-day batch netting process) simplifies and removes processing activity in the end-of-day processing cycle, enabling greater system scalability for CHES User transaction processing.

### 3.4.2. Position accounts

The CHES replacement system introduces an account construct known as a 'position account'. Clearing Participants will be required to maintain at least one position account to record their unsettled novated obligations with the CCP. This account will serve as a centralised ledger for tracking and managing the obligations that arise from trades that have been novated to the CCP but have not yet settled, and is separate to the settlement account (see section 3.4.3).

Position accounts provide the technical foundations for:

- Clearing-only participation;
- Account segregation (see section 3.4.3); and
- Interoperability (see section 6).

### 3.4.3. Account segregation

The CHES replacement system will provide position account functionality (as outlined in section 3.4.2 above), which will enable the separation of house and client cash market positions during the trade settlement cycle. This functionality provides the technical foundations for the segregation of a Participant's positions from those of that Participant's clients. It also provides the foundations to segregate collateral held by the central counterparty in relation to margin obligations on positions.

Currently in CHES, house and client cash market positions are commingled with arrangements in place that provide materially equivalent protection of client assets to those that would be provided by house and client segregation of positions and collateral.<sup>4</sup> These arrangements are supported by the ASX Clear and ASX Settlement Operating Rules, which provide for the strict segregation of client cash and securities during the trade settlement cycle. The ASX Clear Operating Rules also prohibit Clearing Participants from using client collateral to meet its margin obligations to the central counterparty on cash market positions (whether entered into on behalf of the client or otherwise). These protections will remain applicable in the CHES replacement system.

Table 3 below outlines three models for segregation planned to be supported in Release 2. In some cases, this would need to be supported by additional data provided by AMOs.

<sup>4</sup> Under the RBA's supplementary guidance for the Financial Stability Standards (FSS), a central counterparty may be able to achieve 'materially equivalent' protection of customer assets by alternative means.

Table 3: Supported account segregation models

Segregation models	Description
<b>Segregated house and omnibus client positions</b> (based on field 'order capacity' to be added in Release 1)	<ul style="list-style-type: none"> <li>• <u>House</u> (principal): trades executed for the firm's own account.</li> <li>• <u>Omnibus Client</u> (agency): trades executed on behalf of one or more clients.</li> <li>• <u>Unallocated</u> (mixed): trades that are not initially allocated to a house or client account and can be allocated at a net level as part of a post-trade allocation process.</li> </ul>
<b>Individual client segregated positions</b> (based on new field 'client identifier')	<ul style="list-style-type: none"> <li>• Trades can be registered against segregated position accounts for individual clients if they are identified as such at the point of execution and notified on the trades.</li> </ul>
<b>Segregated positions for third party clearers</b> (based on existing field 'trading Participant')	<ul style="list-style-type: none"> <li>• Trades can be registered against segregated position accounts for each trading Participant in cases where a third party is responsible for clearing.</li> </ul>

In addition to the supported account segregation models above, these can be linked to settlement accounts as outlined in Table 4.

Table 4: Position account to settlement account mapping

Account mapping	Description
<b>Mapping to a single settlement account</b>	Multiple position accounts can be mapped to a single settlement account, creating a single net settlement obligation that is settled on a commingled basis.
<b>Separated settlement accounts</b>	Position accounts can be mapped to separate settlement accounts, resulting in the creation of separate net settlement obligations. This approach provides operational segregation throughout the settlement process.

Figure 5 provides an illustration of the account segregation models proposed to be supported for Clearing and Settlement Participants, and Figure 6 provides an illustration of account segregation models proposed to be supported for third party Clearing Participants.

Figure 5: Account segregation for Clearing and Settlement Participants

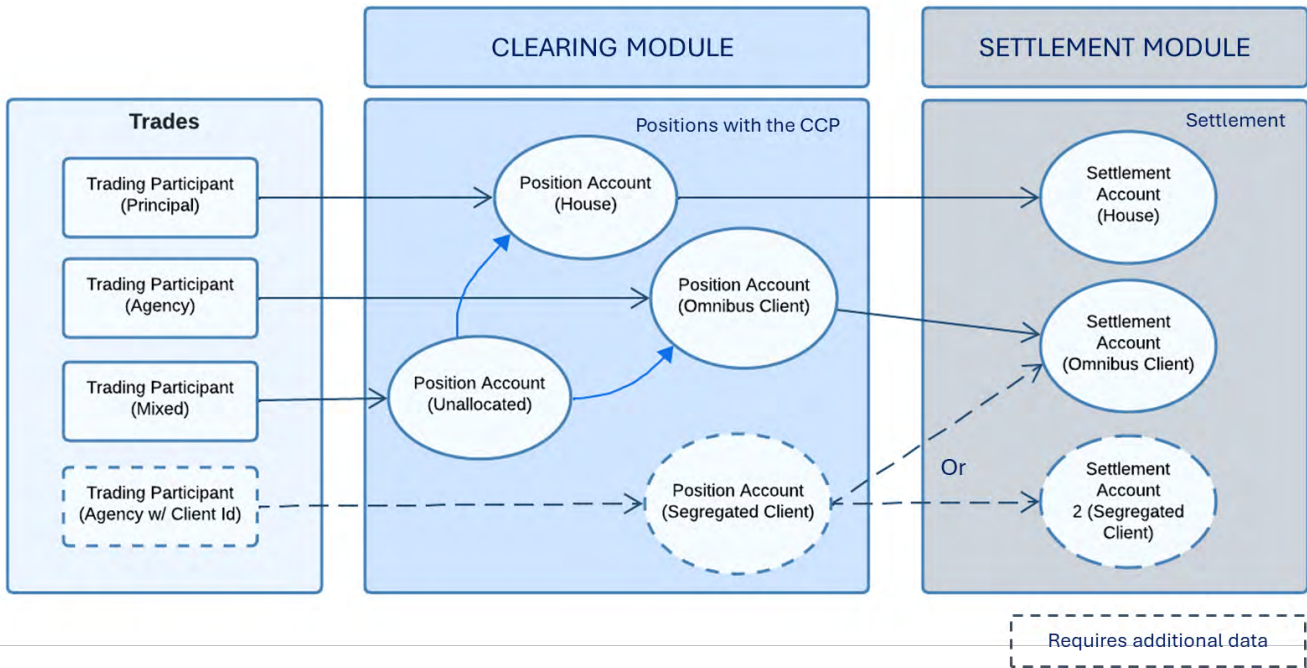
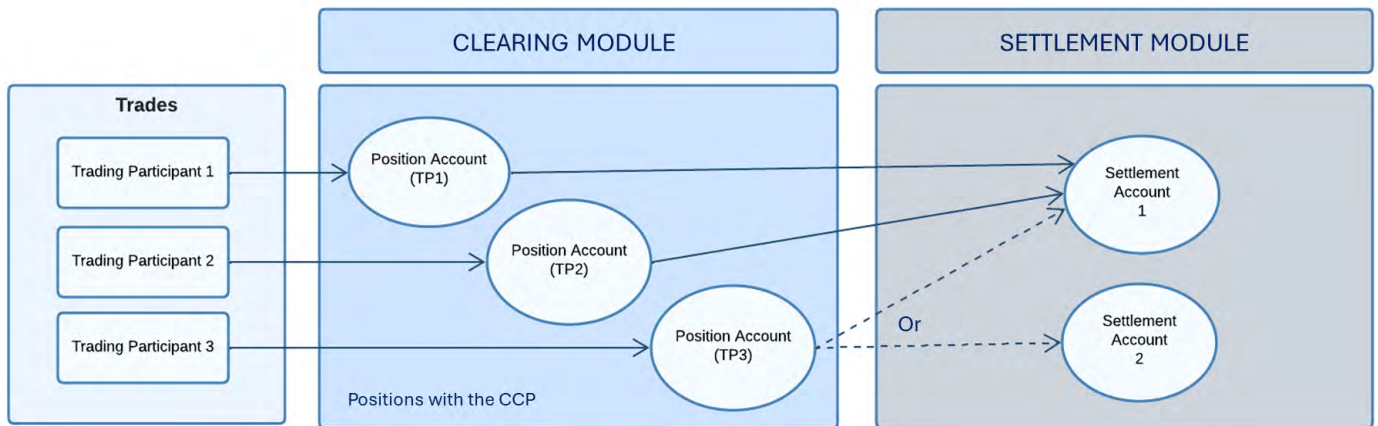


Figure 6: Account segregation for third party Clearing Participants



Industry engagement to date has indicated that the proposed account segregation models will facilitate a more flexible clearing and settlement framework that can accommodate diverse industry operational requirements and improve the efficiency of the existing settlement process. Importantly, it is anticipated that account segregation will be optional, with the current client protection arrangements remaining applicable to all Clearing Participants.

Selected account structures are proposed to be made available to CHES Users and their Software Providers during industry test phases, with ASX to coordinate with each Participant on their preferred structure for Release 2 go-live.

*Q5. Does your organisation support the scope of the clearing upgrades for CHES replacement Release 2?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

*Q6.1 Would your organisation use an optional segregated account structure if offered by the CHES replacement system?*

- a) Yes - as part of Release 2*
- b) Possibly - as part of Release 2*
- c) Possibly - post Release 2*
- d) No current intention*
- e) Not applicable to my organisation*

*Q6.2 If you answered yes or possibly to Q6.1, which account structure would suit your organisation best?*

- a) Segregated house and omnibus client*
- b) Individual client segregated positions*
- c) Segregated positions for third party clearers*
- d) Not applicable to my organisation*
- e) Other (please specify below)*

*Please provide context to your response above*

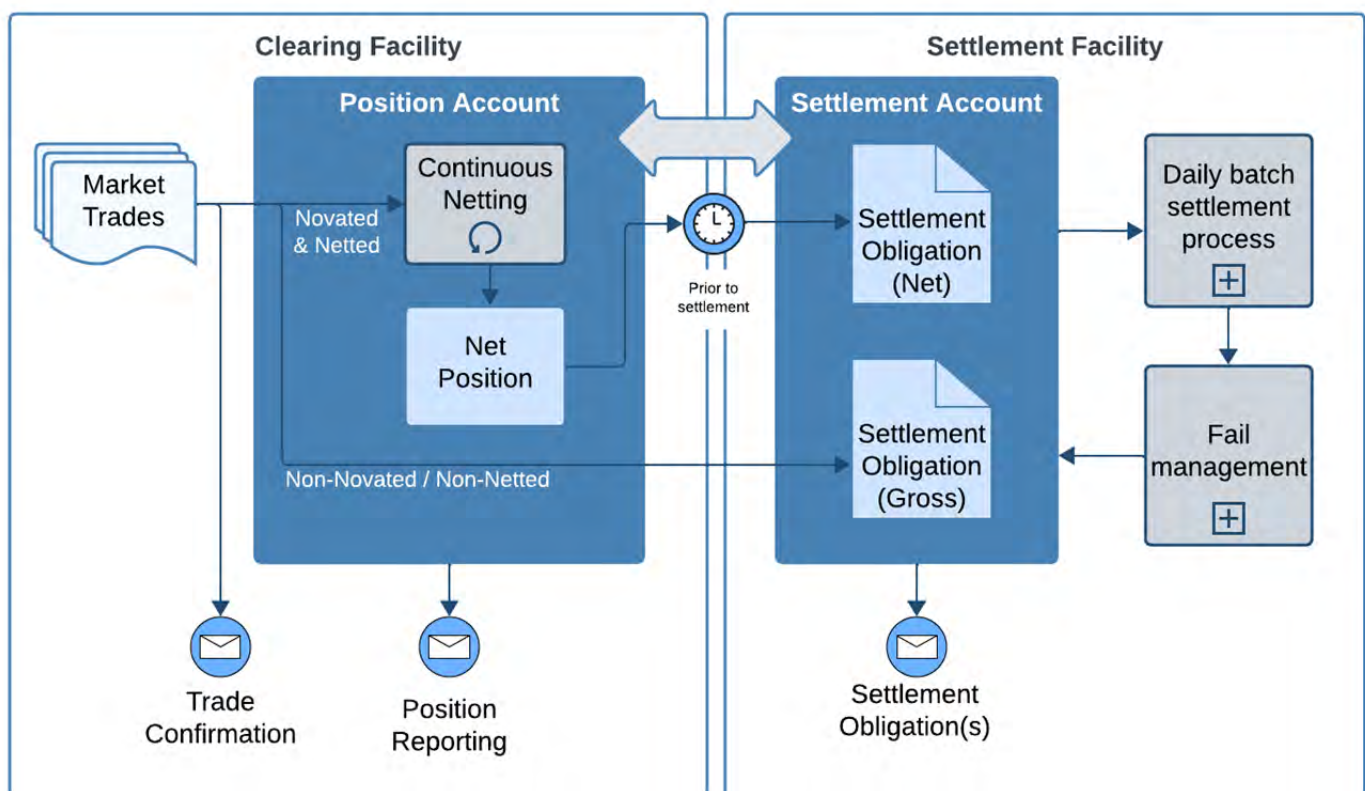
*Q6.3 Please provide any further information about the proposed optional segregation models.*

### 3.5. Settlement

While settlement in the CHES replacement system will continue to operate on a DvP model 3 basis<sup>5</sup>, Release 2 will introduce new functionality to the Settlement Facility, including improved transfer and settlement instruction processes for the movement of securities and associated cash payments.

Additionally, the introduction of position accounts in Release 2 will segregate the process of registering trades and netting these into positions within the Clearing Facility prior to transferring those positions to the Settlement Facility for settlement. Clearing Participants' net positions will be finalised and transitioned from the Clearing Facility to the Settlement Facility where they are materialised as settlement obligations associated with a Settlement Participant's settlement account (entrepot Holder Identification Number (HIN)) and settled (see Figure 7 below).

Figure 7: Relationship between position accounts and settlement accounts for market obligations



<sup>5</sup> DvP model 3 refers to “systems that settle transfer instructions for both securities and funds on a net basis, with final transfers of both securities and funds occurring at the end of the processing cycle” (BIS, 1992, Delivery Versus Payment in Securities Settlement Systems, page 16, available at: <https://www.bis.org/cpmi/publ/d06.pdf>).

### 3.5.1. Pre-settlement – priming and scheduling for settlement

ASX proposes that the CHESS replacement system will rationalise and enhance transactions within the system that allow for the movement of securities between accounts, aligning to international standards. The types of transactions intended to be supported in the CHESS replacement system are outlined in Table 5 below.

Table 5: Types of transactions supported

Transaction type	Used for	Settled via	To replace EIS message
<b>Account (holding) transfers</b>	Unilateral free of payment transfer of securities between accounts (HINs)	On a demand basis or scheduled for the start of a future business date	001 (Single Entry Transfer)
<b>Settlement instructions</b>	Unilateral or bilateral free of payment, delivery versus payment and other payments	In batch settlement, scheduled for the start of a future business date or on a demand basis <i>Note: this includes the ability for settlement instructions with payment outside of batch</i>	<ul style="list-style-type: none"> <li>• 003 (Transferor Submitted Demand Transfer)</li> <li>• 005 (Dual Entry Transfer)</li> <li>• 101 (Dual Entry Settlement)</li> <li>• 105 (Single Entry Settlement)</li> <li>• 107 (Scheduled Settlement Transfer)</li> </ul>
<b>Portfolio transfers</b>	Unilateral or bilateral free of payment transfers of all holdings on an account (HIN) to another account (HIN)	Scheduled for overnight processing	Not applicable (new feature)

These transaction types are intended to cater for all scenarios offered in current CHESS whilst also providing the ability to:

- **Schedule the movement of all holdings** between two existing accounts (HINs) on a bulk basis, and as an additional alternative to change of controlling Participant (portfolio transfer).
- **Settle a bilateral DvP transaction** outside of batch on demand, or at the start of a future business date. This is expected to use a real-time feeder to the Reserve Bank Information and Transfer System (RITS) for payment (see section 3.5.4).

In addition to modernising existing CHESS functionality, it is proposed that the CHESS replacement system will leverage enhancements offered by the TCS BaNCS MI product, which are expected to provide the industry with the benefits outlined in Table 6.

Table 6: Product specific benefits

New/improved functionality	Benefit
Scheduling of non-batch instructions and transfers for the start of a future business date	Allow Participants to input and agree on transactions in advance of the movement of securities between accounts.
Auto-hold pending stock	Automatically hold settlement instructions and transfers pending availability of stock. Settlement instructions are released by the system once stock becomes available, instead of rejecting the settlement instruction up front.
Participant initiated hold and release	Allow settlement instructions to match without automatically scheduling for settlement by providing an optional 'hold' indicator. This provides Settlement Participants with greater flexibility and control over their settlement processes, allowing them to manage the timing and coordination of their transactions by allowing settlement instructions to match without automatically scheduling for settlement, reducing the operational uncertainty associated with unmatched transactions.
Pre-agreed bilateral transactions	Provides Participants the ability to input a pre-agreed bilateral transaction to replace and enhance the existing Participant group functionality and rationalise its use to all transaction types.
Reservation of units for settlement	Allows for reservation of units to fulfill delivery of a settlement instruction or holding transfer on request, or automatically where required.
Linking for contingent settlement	Provides the capability to link two or more settlement instructions together for the purposes of settlement, adhering to ISO 20022 linking conventions (before/after/with/info) and the capability to link settlement instructions within settlement pools to manage settlement of groups of instructions collectively. This ensures that the assets required to fulfill a settlement instruction or holding transfer are available and cannot be used for other purposes, allowing Participants to manage complex settlement scenarios and dependencies effectively.

### 3.5.2. Pre-settlement – matching

It is proposed that the CHES replacement system will support enhancements to the existing matching criteria for settlement instructions, including:

- **Mandatory matching fields:** both parties must provide matching values for the new matching attributes.
- **Additional matching fields:** where a party provides a value for an attribute, the counterparty must provide the same value for the attribute.
- **Optional matching fields:** where a party provides a value for an attribute, the counterparty can either provide the same value for the attribute or no value.
- **Non-matching fields (public/private):** fields that do not need to match and can differ on both sides of the transaction and are either communicated to the counterparty or held privately.

The CHES replacement system will have the ability to support an expanded number of available fields for potential matching, including ISO 20022 fields for settlement instructions, such as:

- **Common matching identifier** for the transaction that could be allocated upstream of CHES (for example on a matching platform) and used to direct matching;
- **Multiple additional parties** that can be used to represent end clients and other involved parties; and
- **Unique Transaction Identifier (UTI)** which could be used if determined to provide benefits and applicability in the Australian cash equities market.

Enhancements to the available fields will allow Participants to provide comprehensive and detailed information, facilitating a high degree of flexibility and precision in the settlement process.

The matching criteria can be configured during the testing phase and after CHES replacement Release 2 go-live, if necessary. This provides ASX and industry stakeholders the ability to test the information flow and matching of new information prior to any new information becoming mandatory matching criteria.

ASX will continue to work with the industry to determine the matching criteria based on the fields available in the ISO 20022 standards, including understanding if upstream system information can be leveraged to assist in matching. This may also include evaluating whether sourcing transactions directly from upstream systems would be beneficial to users.

### 3.5.3. Batch settlement

It is intended that the CHES replacement system will continue to leverage DvP model 3 settlement with a single daily batch. It should be noted that the timing of batch settlement may be changed in preparation for T+1, however this will be subject to further industry engagement.

The CHES replacement system's batch settlement process will largely mirror the current approach, including the key steps outlined in Table 7.

*Table 7: Key batch settlement steps*

Batch settlement step	Description
<b>Eligibility check</b>	Verify that all transactions meet the necessary criteria for settlement.
<b>Sufficient unit check and unit fail algorithm</b>	<ul style="list-style-type: none"> <li>• Ensure that there are sufficient units available for settlement.</li> <li>• Implement an algorithm to handle unit shortages or failures.</li> </ul>
<b>Payment authorisation and back-out (if necessary)</b>	Authorise payments for transactions and reverse transactions if any payment authorisation fails.
<b>RITS ESA funds movements</b>	Perform fund movements between Exchange Settlement Accounts (ESAs) using RITS.
<b>Movements of units and notifications</b>	Execute the transfer of units between accounts and sending notifications to Participants about the settlement status and details.

It is expected that settlement will be enhanced through the automation of Payment Provider authorisations (see section 3.5.4), improving overall efficiency and providing Participants with more timely settlement.



## Changes to Standard Settlement Price (SSP)

Currently, following the failure of a Net Broker Obligation (NBO) due to a shortfall in units, the batch settlement process applies an SSP as part of the process to reschedule these obligations to the following business day. This results in marking to market failed NBOs, meaning failed NBOs are valued at the current market price and that the CCP is not required to pay or receive any funds associated with the failed NBO as part of the settlement process.

Following stakeholder feedback, ASX is considering the implications of no longer applying an SSP to failed netted obligations, and for this to be funded by the CCP.

### 3.5.4. Payments

ASX proposes that the CHESSE replacement system will include the features outlined in Table 8 below to support pre-approved payment limits and enhanced monitoring capabilities.

Table 8: Proposed payment enhancements

Payments function	Description
<b>Pre-approved payment limits</b>	<ul style="list-style-type: none"><li>• Supports the setup of pre-approved payment limits for payment facilities.</li><li>• Payment Provider authorisations are required only when the net funds obligation exceeds the pre-approved limit.</li><li>• Pre-approved limits can be increased or decreased as needed.</li></ul>
<b>Batch settlement cycle</b>	<ul style="list-style-type: none"><li>• Net funds obligation is calculated for each payment facility.</li><li>• Participants and Payment Providers are notified of the calculated net funds payment or receipt.</li></ul>
<b>Non-batch DvP</b>	<ul style="list-style-type: none"><li>• A payments channel that supports the ability to settle on an intra-day, gross basis which will be used for non-batch DvP transactions and may also be used for corporate action payments.</li></ul>
<b>User Interface (UI) for monitoring</b>	<ul style="list-style-type: none"><li>• Dashboards display Participants' net funds obligations.</li><li>• Dashboards trigger alerts when pre-approved limits are breached.</li><li>• Participants can view predicted funds obligations on the dashboards.</li><li>• Information on predicted funds obligations will be available via message-based reports and/or UI, as applicable.</li></ul>

Automated authorisations in the CHESSE replacement system may improve batch settlement times by providing settlement outcomes sooner and providing more time for post-batch operational processes. This would ensure that manual intervention is not typically needed for non-batch DvP payments. Further engagement with the RBA and Payment Providers on the real-time feeder to RITS will be required.

### 3.5.5. Ex movements (Cum Entitlement Balances)

Cum Entitlement Balance is a unique feature of the Australian market that was introduced when settlement periods were significantly longer than the current T+2 settlement regime. The functionality allows for the movement of securities on a 'cum' or 'ex' basis, i.e. with or without the entitlement to the corporate action. To support the functionality, CHES is currently required to maintain separate balances for up to five concurrent corporate actions per security across all transactions in CHES and CHES Users' systems. While this unique feature provides benefit to the Australian market, it substantially increases overall system complexity for both ASX and Software Providers, leading to higher industry costs, testing and maintenance overhead.

It should be acknowledged that although the Cum Entitlement Balance has been beneficial in the past, it is an exception internationally. Settlement timeframes (currently T+2) have reduced substantially since the introduction of this functionality and, with a potential transition to T+1, the use and need for the Cum Entitlement Balance as currently designed has diminished. As part of the CHES replacement project, ASX plans to rationalise use cases requiring the Cum Entitlement Balance to simplify the system design. This aims to reduce complexity, lower costs and streamline operations while maintaining necessary functionalities for the Australian market.

We propose to restrict the ability to move transactions on an ex-basis to the two specific scenarios outlined in Table 9 below.

Table 9: Use cases for ex movements

Scenario	Detail	Entitlement
<b>Priming</b>	Moving securities from a seller's HIN to a settlement account.	The entitlement to the corporate action remains with the seller.
<b>Securities lending</b>	Settling a DvP securities lending transaction.	The entitlement to the corporate action remains with the lender.

By limiting transactions to the above two use cases, the Cum Entitlement Balance would not need to be materialised in CHES as a separate balance. Instead, entitlement balances could be calculated at the end of the day on the Record Date and provided to Share Registries in a similar manner to the current process. This information could also be provided to Participants as required.

This approach would simplify the CHES replacement system design while still accommodating essential ex-basis transactions, reducing overall complexity and maintaining necessary functionality for corporate action entitlements.

Share Registries would continue to be provided with equivalent reporting for the calculation of entitlements.

Following the consultation process, ASX intends to further engage with impacted parties on this topic, including through the BDWG to discuss detailed design.

### 3.5.6. Claims and Adjustments

It is intended that the CHES replacement system will enhance the claims and adjustments process (currently referred to as 'diary adjustments') to resolve existing issues and better align with global market practices by implementing the following:

- **Separation of the claim transaction from the failed transaction**, allowing the claim to be scheduled in line with the payment date of the corporate action and reducing the need for the claim to be funded prior to corporate action payment date.
- **Ensuring claims are based on the finalised payment amount**, rather than using an estimated value as is currently necessary in some cases. This reduces exposure to foreign exchange fluctuations.
- **Ability to request the CCP isolates a counterparty** to provide a simple mechanism for a buyer to indicate their preference in an optional corporate action (such as preference to lapse rights), or bilaterally negotiate an outcome in the case of a complex corporate action.
- **Remove or reduce the need to disable netting** for certain securities undergoing a corporate action and for Participants to need to negotiate outcomes bilaterally with multiple counterparties.

ASX will continue to explore the possibility of providing an automated process for the transfer of franking credits and evaluate whether this can be accommodated as part of Release 2, or as part of a subsequent enhancement.

### 3.5.7. Exchange Traded Fund (ETF) creations/redemptions

Participants involved in the current process for the creation and redemption of ETFs have indicated that the existing design in CHES necessitates manual steps in back-office systems creating operational risk and inefficiencies.

ASX plans to seek input from Participants and Share Registries on the current process and to evaluate potential technical or business process changes in the CHES replacement system to simplify and automate the process.

*Q7. Does your organisation support the proposed scope of settlement for CHES replacement Release 2?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

*Q8. Does your organisation support simplifying the processing of 'ex transactions' (i.e. Cum Entitlement Balances)?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

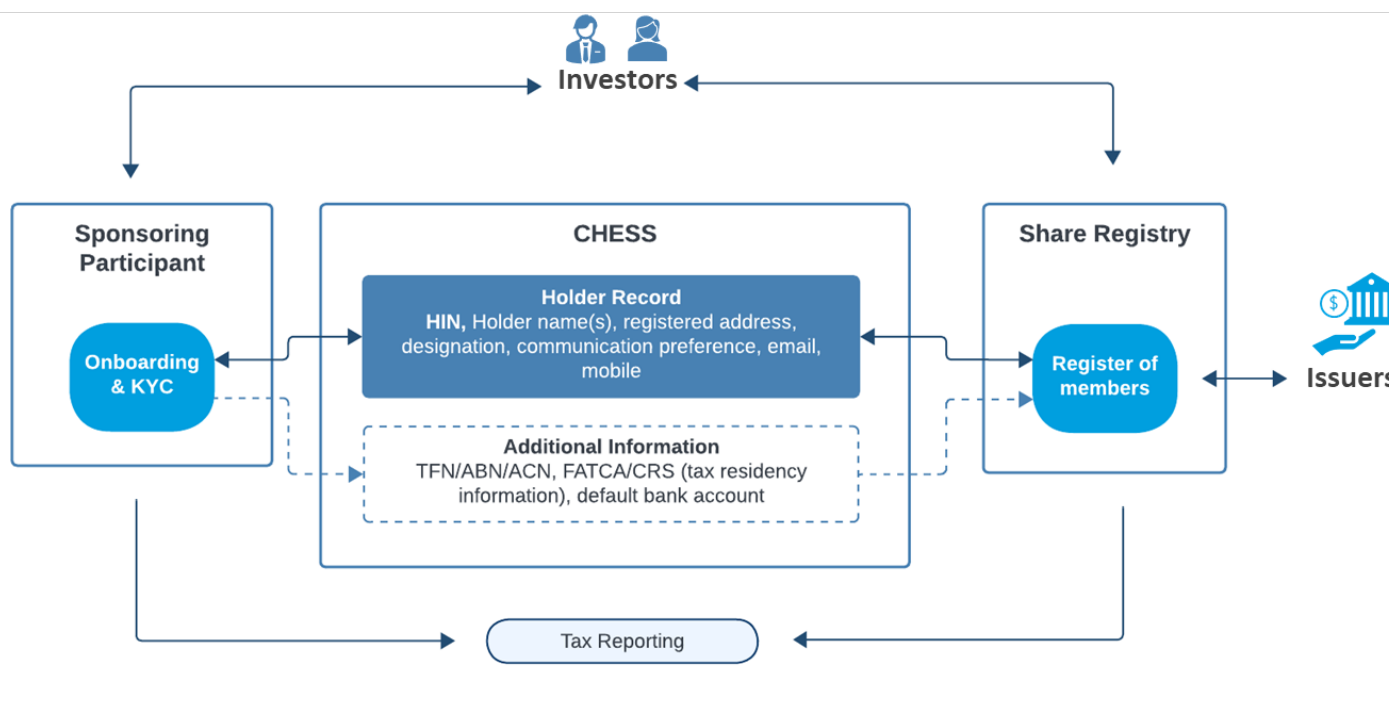
### 3.6. Subregister

The CHES replacement system will separate the subregister related functionality from settlement. Currently, the centralised electronic subregister (the CHES Subregister) for investor holdings is used as a mechanism to facilitate the maintenance of holder and holding details. Any investor that trades on the market may have an account with a sponsoring broker who in turn creates an account in CHES for that investor to facilitate settlement. Each holder's account is represented by a HIN and maintained as 'name on register' with direct ownership of the financial products.

A separate Issuer register is maintained by each Issuer's Share Registry, including holdings that are not held in CHES (on the Issuer Sponsored Subregister, represented by a Security Reference Number (SRN)), as well as details of those holdings held in CHES. Share Registries are provided with information regarding any changes to holdings as a result of settlement activities. Share Registries can also advise changes to investor holdings in CHES as a result of Issuer activity, such as corporate action processes.

Release 2 is intended to upgrade and modernise the CHES Subregister functionality to provide more structured holder details, with optionality for the capture of additional investor information (as shown in Figure 8) to support Share Registry services and promote a more consistent investor experience.

Figure 8: Role of the CHES Subregister for transmission of investor information (CHES and CHES replacement)



This paper deals with proposals regarding the collection, use and disclosure of information under the CHES replacement system. These matters will continue to be governed by the Operating Rules, which specify the information to be provided and how it is used. Associated Operating Rule amendments for any changes to these arrangements will be detailed in the rule amendment consultation process (see section 10).

### 3.6.1. Registration details

It is intended that the CHES replacement system will support the standardisation of registration (account) details for investors recorded on the CHES Subregister. The standardised format will adhere (where applicable and relevant) to ISO 20022 global messaging standards. Standard registration details will continue to include the name, address and communication method for investors.

ASX proposes to standardise and uplift the existing CHES format to support:

- the entry of full names and designations without abbreviations;
- up to four joint holders;
- addresses captured in a structured account format with clearly delineated fields; and
- communication preference including email addresses and mobile number.

A standardised format for the recording of holder registration details seeks to minimise instances where multiple holdings are created by one or more Participants for the same holder, with inconsistently recorded registration details (for example 'Ms Jane A Smith' and 'Ms Jane Amelia Smith'). The standardised format would reduce operational inefficiency and costs associated with managing holdings and conversions between the CHES Subregister and Issuer Sponsored Subregister and facilitate more accurate identification of the relevant holders.

ASX will continue to work with industry to establish clear guidelines in relation to recording registration details, formats for standardisation and how details are entered and maintained in the CHES replacement system. To assist the industry to transition existing holder registration details to the new standardised format, ASX proposes to offer a Registration Details Conversion Tool for data transformation.

Based on additional feedback from Share Registries regarding operational challenges for holders with no holdings ('zero holdings'), HIN cancellation processes and validation of registration details as part of allotments, ASX is exploring opportunities to enhance information sharing arrangements, where practical and supported within the applicable regulations and Operating Rules.

### 3.6.2. Foreign ownership restrictions

Following industry feedback, ASX is evaluating whether the residency indicator field used in CHES should be enhanced to provide a more consistent experience. Currently the residency indicator is used for the purposes of:

- **Aggregate foreign ownership restrictions** – flagging holders that are considered foreign for the purposes of maintaining aggregate foreign ownership restrictions.
- **Foreign Person exclusions** – applied to securities which have Foreign Person restrictions under section 5 of the Securities Act of 1933 of the United States.

ASX proposes that the general-purpose residency indicator (indicating domestic, foreign or mixed) at a HIN level be replaced with the ability to specifically identify information in relation to the exclusions that may apply to a given holding. This could include the ability to indicate that a HIN belongs to a non-Foreign Person, non-US person, or that a person is considered a Foreign Person for the purposes of aggregate foreign ownership restrictions.

### 3.6.3. Additional investor information

To enhance the investor experience and reduce the need for Participants to provide the same information for each holding repetitively, a number of industry stakeholders have requested that the CHES replacement system be designed to hold and communicate additional investor information linked to a CHES holding to Share Registries, where a Participant elects (on an optional basis) to provide this information.

Feedback suggests this may improve the overall investor experience by ensuring that information which is already captured by Participants is more efficiently communicated with Share Registries, allowing for information to be communicated on acquisition of a new holding and limiting the need for investors to provide the same information to multiple parties.

Information which could be held in the CHES replacement system and communicated to Share Registries includes information that is passed through CHES today, and additional information not currently supported by CHES, such as:

- Tax File Numbers (TFNs), Australian Business Numbers (ABNs) and Australian Company Numbers (ACNs);
- Foreign Account Tax Compliance Act (FATCA)/Common Reporting Standard (CRS) details such as tax residency and foreign tax identification number(s); and
- Bank account details.

In light of the above, ASX is exploring whether the CHES replacement system should provide this functionality. ASX notes that should some or all of this information be capable of being held in the CHES replacement system, we would need to consider the laws applicable to the collection of this information, and what controls and/or restrictions would be necessary and appropriate regarding the collection, use and control of this information (including any necessary rule amendments).

### 3.6.4. Issuer Sponsored – movements from Issuer Sponsored (SRN) to CHES (HIN)

ASX is committed to implementing a more efficient SRN to HIN transfer and conversion process, while maintaining existing client protections. In this regard, industry stakeholders have asked ASX to consider the following business benefits and outcomes in redesigning movements from the Issuer Sponsored Subregister to CHES Subregister:

- **Removing reliance on paper forms:** removing the need for paper forms and manual processes to transfer from the Issuer Sponsored Subregister to the CHES Subregister.
- **Accelerating the transfer and conversion process:** reducing the turnaround time on transfers and conversions (due in part to the current reliance on a registrable transfer document).
- **Minimising Share Registry rejections:** reducing Share Registry rejections on transfers and conversions from the Issuer Sponsored Subregister to the CHES Subregister by providing additional holder and holding balance details where required.
- **Enabling more effective resolution of mismatch issues:** providing richer information in rejection messages to enable Participants to resolve mismatch issues more effectively.

To remove the requirement for a registrable transfer document, it is proposed that the system will support an SRN to HIN transfer process that allows:

- **Settlement Participants that are also Market Participants and/or Clearing Participants** to have the option of requesting an SRN to HIN transfer as per the current process (i.e. continuing to submit requests to transfer holdings in CHES and undertake pre-transfer validation checks).
- **Custodial Settlement Participants** to have the option of requesting an SRN to HIN transfer as per the current process (i.e. continuing to submit requests to transfer holdings in CHES and undertake pre-transfer validation checks).

- **Settlement-only Participants** to have the option to request an SRN to HIN transfer by populating additional details (including registration details) in the message indicating the request is submitted with a pre-transfer check performed, removing the requirement for the registrable transfer document.

The CHES replacement system will support enhanced rejection messaging for SRN to HIN transfer requests, allowing Share Registries to provide Participants with detailed rejection reasons and some or all of the registration details. This will help Participants address and resolve SRN and registration mismatches.

It is expected that the CHES replacement system will also reduce the required response time for a Share Registry to handle an SRN to HIN transfer and conversion from 5 days to the same business day.

### 3.6.5. Issuer Sponsored – SRN enquiry

Industry stakeholders have asked ASX to consider the following business benefits and outcomes to enhance the existing Issuer sponsored enquiry process:

- **Simplified multi-purpose SRN workflows:** combining the SRN enquiry and SRN balance enquiry into a single workflow that allows for different searches against the Issuer Sponsored Subregister.
- **Providing more detailed SRN information:** allowing for the return of more details (including multiple SRN details where holders have more than one SRN) and more granular information on the holdings in the Issuer Sponsored Subregister (such as available balances and holder status).
- **Enabling more effective resolution of mismatch issues:** providing richer information in rejection messages to help participants resolve mismatch issues more effectively, such as the available balance and any holding locks that apply.
- **Supporting a more timely response to SRN enquiries:** increasing automation to reduce the time required to respond to an SRN enquiry to same business day.

ASX proposes to enhance the SRN enquiry process to allow Participants to request information in the following scenarios, as outlined in Table 10.

*Table 10: SRN enquiry enhancements*

SRN	Holder details	Scenario
Not known	Known	Determine the SRN for a specific holder by providing registration details and no SRN.
Known	Known	Validate the registration details for a specific holder by providing the registration details and SRN.
Known	Partially known	Determine the correct registration details for a holder where the SRN is known, and registration details are only partially known.

These changes are intended to improve overall investor experience in relation to transfers and conversions by enabling Participants to query against SRN holdings more efficiently and to resolve SRN and registration details mismatches in a timelier manner.

### 3.6.6. Issuer Sponsored – movements from CHESS (HIN) to Issuer Sponsored (SRN) (including de-listings)

Industry stakeholders have requested that ASX enhance the existing CHESS to Issuer sponsored transfer and conversion process, particularly where conversions are triggered by ASX (as is the case with de-listings) or where a new SRN is generated by the Share Registry (as is the case when an existing holder is not found).

Some Participants have indicated that the process for converting from the CHESS to Issuer Sponsored Subregister can result in scenarios where the SRN is not known and is provided to holders directly. Not knowing the resultant SRN can cause issues for Participants maintaining direct holdings, and for brokers that maintain an ongoing relationship with the investor.

As a result, ASX proposes to allow Share Registries to respond to an Issuer sponsored transfer or conversion with the SRN allocated to the holding, following the successful transfer or conversion. This would provide certainty to Participants on the SRN details of the holding created or updated on the Issuer Sponsored Subregister.

To facilitate this, Participants would be required to indicate to the Share Registry that they have received consent to receive the SRN allocated to the transferred/converted holding.

Under this proposal, the SRN would not be stored in the CHESS replacement system.

Additionally, to provide greater transparency on the status of each security in the CHESS Subregister, it is proposed that the CHESS replacement system will provide automated information to CHESS Users on the current subregister status of each security code.

### 3.6.7. Holding balances

Participants have requested that ASX explore more efficient and reliable mechanisms for accessing holding balance information to enhance synchronisation between CHESS and Participant systems. As a result, ASX is reviewing its approach to including holding balances in transactional messages to improve performance.

In the current CHESS system, confirmation messages related to holdings provide details about the new holding balance(s) after a transfer. This process is considered inefficient as it necessitates processing all CHESS messages that modify holding balances sequentially, with the order retained in inbound and outbound message queues. This approach can hinder overall system scalability and lead to bottlenecks.

ASX has considered whether the CHESS replacement system may provide a more efficient mechanism to receive holding balances. As new holding balance fields are generally not part of ISO 20022 standard messages, industry feedback highlights that this divergence from standards may not be optimal given supplementary data in each message would be required.

As such, ASX proposes that the 'New Holding Balance' fields are decommissioned and replaced with new functionality to allow for reconciliation, including:

- **End-of-day reporting using ISO 20022** made available to Settlement Participants and Share Registries on an optional basis; and
- **Intra-day holding balances using an Application Programming Interface (API)** (see section 3.8.3) made available to CHESS Users on an optional basis in near-real time.

The option to receive holding balances through an API would allow CHESS Users' systems to be synchronised and reconciled with the CHESS replacement system on a near real-time basis, enabling the timely identification and resolution of any reconciliation issues or breaks. It would also provide Share Registries access to holding information on a more frequent basis, if required.



*Q9. Does your organisation support the proposed scope of subregister and Issuer sponsored processes for Release 2?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

*Q10. Does your organisation support the proposal to enhance registration details and allow for the sharing of additional investor information?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

*Q11. What additional investor information would your organisation find useful to be transmitted via CHES?*

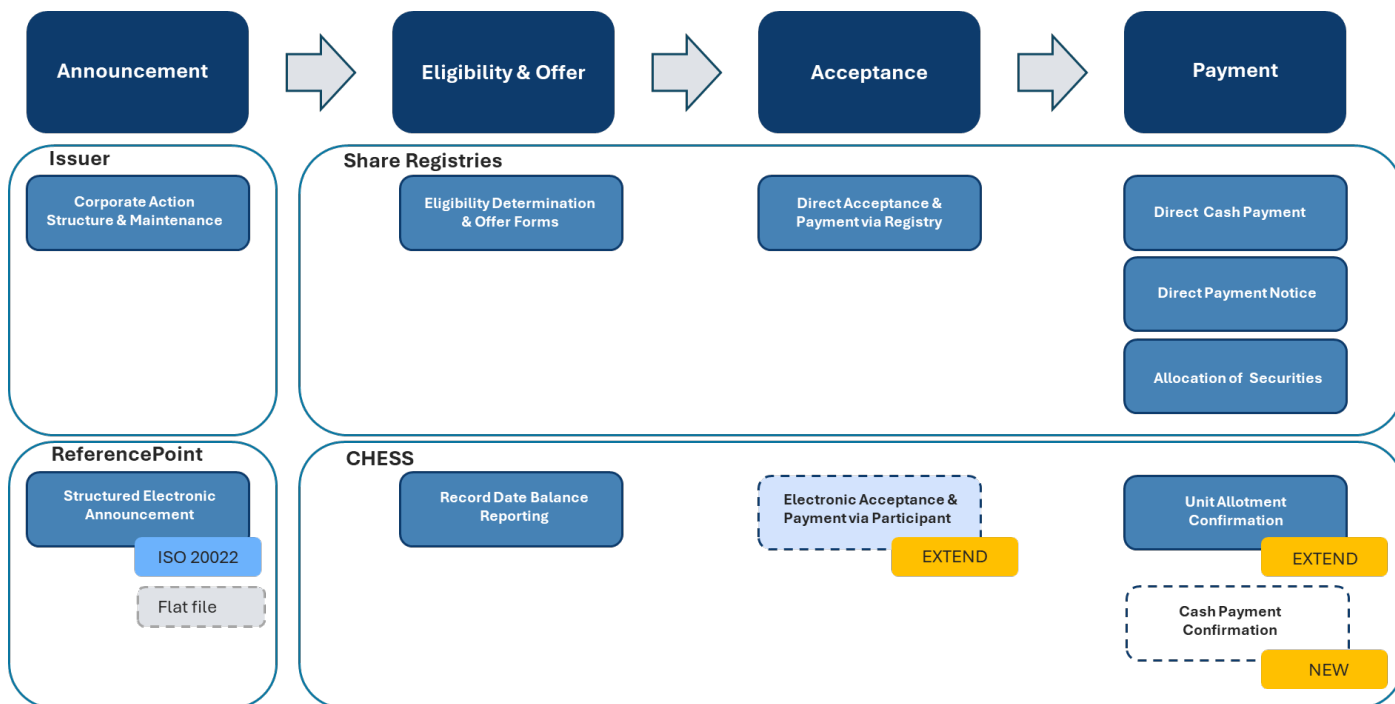
- a) Tax File Numbers (TFNs), Australian Business Numbers (ABNs) and Australian Company Numbers (ACNs)*
- b) Foreign Account Tax Compliance Act (FATCA) / Common Reporting Standard (CRS) details such as tax residency and foreign tax identification number(s)*
- c) Bank account details*
- d) Mobile numbers*
- e) Other (please specify)*

*Please provide context to your response above*

### 3.7 Corporate action services

Australia’s corporate action ecosystem is complex and involves multiple stakeholders, as shown in Figure 9 below. While processing responsibilities are managed by Share Registries with the support of CHES, a significant part of the corporate action acceptance, calculation and fund movement is managed outside of CHES.

Figure 9: Corporate actions ecosystem in Australia



Industry has requested that ASX explore the ability for the CHES replacement system to facilitate further straight through processing of corporate action events between Participants and Share Registries.

Feedback received to date indicates that such services would complement the role that ASX already plays in the corporate action ecosystem by providing standardised interfaces for corporate action events announced by listed or quoted Issuers in Australia (via ReferencePoint services and market notices) and that it would supplement the current facility for the acceptance of takeovers and buybacks events.

Release 2 of the CHES replacement system aims to provide the technical capabilities for these additional corporate action services. However, ASX considers that further industry engagement is warranted regarding the functionality, design and implementation timelines of the corporate action services outlined in the remainder of this section, to establish anticipated market demand and determine whether the functionality should be made operational with, or subsequent to, Release 2.

### 3.7.1. Corporate action elections – takeover facility enhancements

CHESS currently supports elections by Participants on behalf of holders for takeovers, buybacks and other corporate action events (such as reinvestment offers). ASX proposes to retain and enhance this functionality to allow:

- **Transmission of bank account details** as part of the acceptance message, where the corporate action event has a cash payment. Where a bank account is associated with the HIN (see section 3.6.3) this can be pre-populated.
- **Acceptances against ISO standard option codes**, as communicated in the ReferencePoint ISO 20022 corporate action message and replacing the existing proprietary takeover codes. This information will also continue to be communicated in market notices, as it is today.
- **Automated processing to finalise takeovers and buybacks**. Current manual processes, performed by ASX operations staff following instructions from the bid offeror, will be replaced by an electronic system. This new system will allow the bid offeror to manage the process directly.

### 3.7.2. Corporate action elections and payments

To provide straight-through processing automation and benefits for industry, ASX proposes that the CHESS replacement system allows the pass-through of elections (by Participants on behalf of holders) for all optional corporate action events structured electronically and supported as part of the ReferencePoint ISO 20022 service. Optional events are those that require a holder to accept or elect to participate in the event, such as entitlement issues, share purchase plans and dividend reinvestment plans. This currently excludes proxy voting and other unstructured corporate actions.

For corporate action events requiring a payment from the holder to participate, the election will be accompanied by a payment facilitated by the CHESS replacement system from the Participant to the Share Registry. This service is planned to be offered via a real-time payment service, with design improvements to minimise cost and operational overhead (see section 3.5.4). The service would also support refunds in the same payment channel from the Share Registry to the Participant. However, distribution payments from Share Registries to holders (for example dividend payments) are not planned to be supported by CHESS.

The detailed solution design is planned to be developed in collaboration with Participants and Share Registries through the BDWG. This process will focus on ensuring the service is fit for purpose and meets market needs. It will include addressing the operational aspects of the new design to ensure certainty in corporate action processing for Issuers and maintaining the ultimate control of the event with the Share Registry.

Use of these features may be deferred until after Release 2 go-live. This may be done on a phased or incremental basis, based on industry feedback.

*Q12.1 Does your organisation support the proposal for corporate action elections without payment (e.g. DRP/BSP) within the scope of Release 2 of CHES replacement?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

*Q12.2 Does your organisation support the proposal for corporate action elections with payment (e.g. Rights, Share Purchase Plans) within the scope of Release 2 of CHES replacement?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

### 3.7.3. Corporate action distribution confirmations

ASX proposes to facilitate transmission of additional distribution information in relation to corporate actions from Share Registries to eligible holders in a standardised electronic format within the CHES replacement system. This functionality may be delivered as an optional enhancement to the existing workflows that are used to debit and credit units from accounts, and made available as an optional pass-through for those corporate actions paying cash considerations.

If implemented, this feature would leverage the ISO 20022 standard messages for the communication of payment information, including information such as:

- Cash and/or unit movements;
- Tax withholding;
- Franking credits; and
- DRP price and units.

The transfer of cash in relation to these corporate actions would continue to be paid directly from Issuers (or their Share Registries) to eligible holders, outside of CHES.

This proposed functionality would allow:

- **Participants to automate workflows** where they are responsible for notifying the beneficial owner in relation to corporate action information (i.e. for omnibus holdings).
- **Provision of additional information by retail brokers**, allowing them to provide their sponsored holders with richer corporate action information in relation to changes to their holdings.

Use of these features may be deferred until after Release 2 go-live. This may be done on a phased or incremental basis, based on industry feedback.

Additionally, it may be implemented on a bilateral basis between Participants and Share Registries, on a staggered or opt-in basis.

*Q13. Does your organisation support the proposal for the ability to transmit additional corporate action distribution information within the scope of Release 2 of CHESS replacement?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

### 3.8. Connectivity interfaces and data access

ASX proposes to streamline connectivity and data access as part of the CHESS replacement system. ISO 20022 over Advanced Message Queuing Protocol (AMQP) will replace the proprietary CHESS EIS protocol as the core connectivity interface for CHESS Users (except for AMOs, which will use the FIX messaging interface in Release 1) offering a modern interface that adheres to international standards. In addition, a User Interface will be available to all CHESS Users, and an API for specific data access. The proposed CHESS replacement system is designed to accommodate alternate technologies and third party service development. The proposal to adopt ISO 20022 over AMQP is based on industry preferences, existing work, standardisation and the associated risk reductions it brings for Release 2.

The framework for access to data under CHESS is provided by the Operating Rules, which specify the data to be provided and the parties that data may be disclosed to. This framework will continue to apply to the CHESS replacement system, regardless of the connectivity interface used. The Operating Rules dealing with access to data will remain unchanged, unless specified in the proposed Operating Rule amendments that will be consulted on (see section 10). In relation to third parties, any access that may be granted to third parties in the future will be subject to ASX complying with applicable laws and the Operating Rules.

### 3.8.1. CHES User Interface (CHES UI)

ASX will provide CHES Users an optional User Interface (CHES UI) planned to serve multiple roles:

- **Primary access channel:** for users not developing their own software, the digital front-end can act as the main access point to the system for low-volume users.
- **Secondary or complementary access:** the CHES UI is an additional method to access the system, supplementing CHES Users' primary software solutions.

The CHES UI is well-suited to the following scenarios:

- **Low-volume use cases:** for handling non-core or edge-case flows where transaction volumes are minimal.
- **Low-volume users without back-office integration:** for example, a Payment Provider who does not have an integrated back-office system.
- **Ad-hoc data queries and reports:** facilitating detailed data retrieval and reporting needs.
- **Backup method:** a backup option if the primary connectivity method experiences issues, ensuring continuity in operations for critical priority transactions.

This approach provides flexibility and reliability in accommodating different CHES User needs and operational scenarios.

### 3.8.2. Interfaces for transactions

To standardise and simplify the transactional interfaces, the CHES replacement system will use ISO 20022 as a recognised international standard for business process modelling, as a data dictionary and a message format. ISO 20022 is proposed to be offered over AMQP, provided over ASX Net to leverage existing secure and resilient connectivity. AMQP 1.0 (ISO/IEC 19464) is an open and ISO standard message transport which will be used to replace the message transport function of CHES protocol in the CHES replacement system.

ASX plans to engage with stakeholders on the detailed design of ISO 20022 messages through the ISO Design Working Group which is expected to commence in the second half of 2024. This will include reviewing the message types previously consulted on, upgrading to a more current ISO message version, and planning for any version upgrades over the course of the project.

As a result of feedback received from the industry, and given low anticipated usage, ASX does not propose to offer SWIFT connectivity to CHES Users.

Release 2 will also provide additional methods to ensure continuity in transactional message input and provide an interface for low-volume transactions.

This includes:

- **Disaster recovery file:** consistent with the current system, the CHES replacement system will define a process for securely sending and receiving files of messages in the event of CHES User system disruptions.
- **CHES UI:** available for handling low-volume transactions and as a contingency for critical transactional message input in the event of CHES User system disruptions.

### 3.8.3. Interfaces for data access

ASX plans to implement standardised data access interfaces for receiving data and reports from the CHES replacement system. Interfaces for data access will support the use cases outlined in Table 11 below.

Table 11: Data access interfaces

Scenario	Protocol/ access method	Functionality	Use cases
<b>Scheduled and ad-hoc reconciliation (message-based reporting)</b>	ISO 20022 over AMQP	<ul style="list-style-type: none"> <li>Allows CHES Users' systems to receive scheduled and unsolicited information from CHES.</li> <li>Facilitates ad-hoc requests for specific data (e.g. reconciling a specific security code or HIN).</li> <li>Typically used for end-of-day reconciliation processes.</li> </ul>	<ul style="list-style-type: none"> <li>Holding movements for Issuer registries.</li> <li>End-of-day schedules and reconciliation reports.</li> </ul>
<b>CHES User-driven ad-hoc query and extract</b>	UI	<ul style="list-style-type: none"> <li>Enables CHES Users to perform ad-hoc queries on current operational data within the system.</li> <li>Provides extraction capabilities for reconciliation issues or uncommon data requests.</li> </ul>	<ul style="list-style-type: none"> <li>Resolving reconciliation discrepancies.</li> <li>Handling specific data inquiries not covered by routine reports.</li> </ul>
<b>Intra-day reconciliation</b>	API	<ul style="list-style-type: none"> <li>Offers near real-time data access for specific use cases requiring immediate data availability.</li> <li>Supports intra-day reconciliation needs.</li> </ul>	<ul style="list-style-type: none"> <li>Intra-day reconciliation activities for immediate resolution.</li> <li>Future third party data access methods (if required).</li> </ul>

#### Message-based reports and data access through UI

The current CHES system offers a comprehensive suite of message-based reports but does not currently offer a CHES UI for direct data access. Many existing message-based reports enable ad-hoc inquiries, which could be more effectively managed through a CHES UI.

ASX proposes to rationalise the number of message-based reports provided in the CHES replacement system. Reports that are infrequently used and do not support system automation are proposed to be transitioned to a self-service model in the CHES UI. This proposed approach would enhance user experience by providing more efficient and flexible access to data while maintaining system automation for frequently used reports.

#### API for data access

ASX proposes that the CHES replacement system offers optional API access to provide near real-time access to data for CHES Users. This would enable asynchronous data streaming and/or request/response inquiries for specific data use cases prioritised by the industry. It is proposed that the API use a straightforward format, such as JSON, and a modern API framework, such as REST, while leveraging the existing CHES User connectivity via ASX Net (see section 3.10). Data is proposed to be provisioned through the ASX data platform on an asynchronous, near real-time basis, with moderate latency. The data platform will be subject to appropriate data governance arrangements to ensure the security, confidentiality and integrity of the data is maintained.

**Q14. Does your organisation support the proposed connectivity and interface options in CHES replacement Release 2?**

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

**Q15.1 Would your organisation be interested in using an optional data API if offered by the CHES replacement system as part of Release 2?**

- a) Yes*
- b) Possibly (please explain below)*
- c) No current intention*
- d) Not applicable to my organisation*

*Please provide context to your response above*

**Q15.2 If you responded yes or possibly to Q15.1, what would your organisation use the data API for?**

- a) Holding Balances*
- b) Other (please specify below)*

*Please provide context to your response above*

### 3.9. Operating Hours

ASX proposes that the CHES replacement system support extended operating hours upon Release 2 go-live, with the processing schedule to be developed through industry discussions and with consideration of T+1 settlement.

ASX expects reduced overnight downtime due to the introduction of continuous netting, simplification of the Cum Entitlement Balance and movement of reporting processes into a modern data platform. This may allow the business day to be finalised earlier and for next day processing to start earlier. Importantly, ASX proposes that the time available for transactions to continue matching outside of the current operating hours be extended. Additionally, the system design means that certain transactions will be permitted during batch settlement, such as settlement instruction matching and account management.

A select number of transactions are expected to continue to have specified windows for processing, such as Holding Adjustments.

ASX plans to engage with relevant stakeholders on the operating schedule of the CHES replacement system.



## 3.10. Technical Scope

Technical scope encompasses the essential features and requirements that will seek to ensure that the CHES replacement system will have high security, operational reliability, and scalable capacity. Table 12 below outlines how technical scope has been divided in this paper.

Table 12: Technical scope

Technical scope	Description	Section reference
Security	Summarises planned security controls	3.10.1
Resilience	Describes availability targets and includes information on the infrastructure used to achieve operational reliability	3.10.2
Scalability	Provides an overview of key capacity targets and explains how the solution scales	3.10.3
Networking	Provides an overview of ASX Net	3.10.4

### 3.10.1. Security

The CHES replacement system's security objectives and policies will conform to ASX and regulatory standards for confidentiality, integrity, authentication, authorisation, non-repudiation, availability and auditability.

#### Mutual Transport Layer Security (TLS)

ASX proposes to use TLS to ensure authentication, integrity and confidentiality between all CHES and customer endpoints. TLS is a well-supported global standard for securing traffic over a network. It uses public/private key cryptography to mutually authenticate endpoints, provide world class encryption and to perform data integrity checks. This provides a strong foundation for external security. ASX proposes to provide a self-service certificate management portal where users can submit their Certificate Signing Request (CSR) to have their certificate signed and manage the lifecycle of the certificate.

#### ISO 20022 signing

While the ISO 20022 standard does allow for optional digital signing, ASX proposes that ISO 20022 messages do not require signing for the following reasons:

- **Non-repudiation:** can be achieved through the combined security controls of a secure private network (ASX Net with MACsec enabled), mutual TLS for authentication, authorisation and integrity, IP address validation and session and message logging. Notably, the current CHES system does not support message signing.
- **Message size:** ISO 20022 message signatures add approximately 3KB to the size of each message, which would double the average message size and impact bandwidth and storage requirements.
- **Implementation complexity:** implementing ISO 20022 message signing is complex because the ISO 20022 Business Message comprises two distinct XML documents (Business Application Header (BAH) and Document), which prevents the use of standard XML signing libraries. Consequently, CHES Users or their vendors would need to develop bespoke implementations.

*Q16. Given the other strong security controls, do you support ASX's proposal not to use ISO 20022 message signing of both input and output?*

- a) Supportive*
- b) Conditionally supportive (please explain below)*
- c) Not supportive (please explain below)*
- d) Not applicable to my organisation*

*Please provide context to your response above*

### 3.10.2. Resilience

ASX will leverage industry best practices and cloud managed services to provide high availability and enable robust disaster recovery processes to provide enhanced protection against data loss and operational disruptions.

#### **Availability**

ASX plans for the CHES replacement system to have an availability target of 99.95%. This would be an improvement from current CHES, which has an availability target of 99.8%. Regulatory requirements mandate that the CHES system is able to resume operations within two hours following disruptive events; however, backup systems should ideally commence processing immediately.

The ability for the CHES replacement system to meet this requirement will be validated through regular business continuity planning testing, requiring the CHES replacement system to operate from the secondary site on a recurring basis, similar to the existing regime for the ASX Clear and ASX Settlement Facilities.

#### **Cloud**

The CHES replacement system will be hosted using cloud computing services provided by Amazon Web Services (AWS) using a multi-region strategy. AWS infrastructure meets the highest standards of security, compliance and data protection, and ASX will implement the necessary controls and redundancy to ensure that the CHES replacement system meets all necessary service levels. ASX proposes that these controls are externally assured prior to Release 2 go-live.

All major components of the CHES replacement system are designed to be resilient to failure through clustering, active-active or master-slave configurations. This ensures that the system remains robust and reliable in the event of significant disruptions.

### 3.10.3. Scalability

The target capacity of CHES is derived from the RBA's guidance on the FSS. The FSS guidance states that 'both the primary and secondary (and any additional) sites should have sufficient capacity to process volumes that are at least double projected stress volumes.'<sup>6</sup> The CHES replacement system is currently specified to process volumes that are at least double projected stress volumes.

The CHES replacement system will be designed for horizontal scalability to accommodate increased market trade volumes, with corresponding scalability in the messaging infrastructure for CHES Users.

<sup>6</sup> RBA FSS for Securities Settlement Facilities, Guidance 14.7.3.

Key scalability features include:

- **Horizontally scalable core architecture:** a multi-layered, componentised architecture. This architecture integrates memory and computing for high performance, robustness and resilience. The architecture allows for multiple instances to be deployed, enabling horizontal scalability of clearing processes.
- **Messaging:** messaging infrastructure to manage messaging volumes in accordance with FSS requirements, and scale with increasing trade volumes. ASX notes that the specific vendor for the CHES AMQP infrastructure has not yet been selected. Additionally, scaling strategies and performance requirements will consider CHES Users with a higher share of overall messages and carry forward the ability for Share Registries to allocate their Issuers across multiple sets of queues (Access Identification Codes).
- **Reduced messaging:** the netted trade messages will not be sent overnight (see section 3.4.1), reducing the number of outbound messages. This, in combination with de-scoping of ISO 20022 messaging signing (if supported by the market), results in a material decrease in message data volumes.

### 3.10.4. Networking

To ensure security and resilience, connectivity to the CHES replacement system is proposed to be exclusively through ASX Net, which has various options for connectivity. SWIFTNet will not be available for CHES Users.

ASX Net is a high-performance and secure network that connects CHES Users to the ASX Clearing and Settlement Facilities, providing CHES Users with a robust and reliable platform to access trading, clearing, settlement and other related services.

ASX Net is planned to be used for testing and production. ASX will assist any CHES Users not currently connected to ASX Net to establish the necessary connection and will assist CHES Users to identify the most appropriate connectivity method for their requirements. This may include one or more of the following:

- **ASX Net:** Standard connectivity for CHES Users not situated in ASX's Australian Liquidity Centre (ALC).
- **ALC:** Cross connect or infrastructure in CHES User's ASX Net cabinet to provide access to CHES.
- **Virtual Private Network (VPN):** Provides access to ASX Net over the internet. Consistent with current arrangements, use of this option is proposed to be open to a subset of CHES Users.

## 3.11. Future scope and scope outside of CHES replacement

### 3.11.1. Future release schedules and updates

Following the implementation of Release 2, ASX proposes to introduce a service release model to facilitate ongoing industry driven enhancements and upgrades to the CHES replacement system. This approach will enable ASX and industry stakeholders to collaborate continuously, address any scope items not finalised for the delivery of Release 2 and introduce new features and improvements in a timely manner. The frequency of releases will be determined in collaboration with industry stakeholders, to balance the need for new features with the operational impact of updates, as well as having regard to the annual ISO 20022 release schedule to enable compatibility and compliance with industry standards. This synchronisation will help to maintain the system's interoperability and adherence to global financial messaging standards.

### 3.11.2. Future scope for consideration following Release 2

ASX is currently considering additional industry driven scope items which are not planned for delivery in Release 2. These items, and future industry driven items, will continue to be refined for the post-Release 2 backlog of future service releases and enhancements, so that the CHESS replacement system can continue to evolve in response to industry requirements.

Examples of scope items under consideration for post-Release 2 include:

- **Issuer sponsored holding lock:** the ability for Participants to request a time-limited lock on holdings in the Issuer Sponsored Subregister to assist with sales of Issuer sponsored holdings. This was identified as potentially beneficial but considered low priority in the scoping sessions.
- **Electronic proxy voting:** the ability to pass through messages related to electronic proxy votes was identified as a scope objective but cannot yet be progressed due to the dependency on a standardised electronic structure for proxy voting.
- **Transfer of entitlement:** evaluate opportunities to facilitate the transfer of entitlements (pre and/or post Record Date) ensuring this does not impact Issuer schedules.

### 3.11.3. CHESS functionality not carried forward

Table 12 below outlines specific functionality in the existing CHESS system that will be decommissioned, due to redundancy, low usage, or replacement by improved processes and/or functionality.

Table 12: CHESS functionality not carried forward

Functionality to be decommissioned (X indicates timing for decommissioning)	Release 1	Release 2	Rationale
Block/unblock from netting	X		Not in active use
Un-netting	X		Not in active use
Bilateral amendment and cancellation of market trades by Participants prior to settlement	X		Not in active use
Low usage message-based reports (as agreed through further industry consultation and workshops)		X	Solution simplification and rationalisation
Warrant issuer's agent transfers		X	Not in active use
Certificated transfers and conversions		X	No longer relevant
Dual entry Real Time Gross Settlement (RTGS)		X	Not in active use, replaced by non-batch DvP
Transfer and fields in relation to stamp duty		X	No longer relevant
Validation of bank account details (BSB)		X	Solution simplification
Validation of state/suburb/postcode (for accounts)		X	Solution simplification
mFund Settlement service		X	Planned to be decommissioned by May 2026

### 3.11.4. Functionality being progressed outside of the CHES replacement project

ASX plans to progress a number of items identified by industry in the Technical Committee, during both scope refinement workshops and BDWGs, outside of the technical delivery of the CHES replacement project, as outlined in Table 13 below. These items relate to other technology systems or operational procedures which are not dependent on the replacement of CHES to go-live.

Table 13: Scope items intended to be progressed outside of CHES replacement

Item	Rationale/next steps
<b>Standardised usage of transaction basis</b>	An industry workshop on this item is planned in late-2024 for ASX to provide better guidance on the existing transaction basis field and use of the on-market/off-market designation.
<b>Common matching rules for registration details</b>	Independent of the CHES replacement project, industry is progressing discussions to develop a common set of matching rules for registration details across all Share Registries in relation to Issuer sponsored transfers and conversions. This is planned to be progressed in AFMA's Registries Working Group.
<b>Deferred settlement security processes</b>	Some Participants have identified challenges around the way that deferred settlement securities are created. Given that any changes may also impact the listings and trading platforms, substantive changes are not planned within the scope of the CHES replacement project. ASX will continue to assess and refine these processes with industry to ensure they remain fit for purpose.
<b>Holding adjustment reason codes</b>	ASX is in the process of reviewing the current set of holding adjustment reason codes with industry stakeholders to reduce the use of miscellaneous codes to adjust use where possible and promote automation. If it is determined that new codes are required, these are planned for the current CHES system and any agreed changes will be reflected in CHES replacement.
<b>Intra-day margining</b>	ASX is investigating the introduction of scheduled intra-day margin calls. This will be developed in a way that does not conflict with existing ASX Clear processes such as the timing of any ad-hoc derivatives intra-day calls, any potential new event-driven calls, and changes that could be introduced from CHES, CHES replacement or a transition to T+1 settlement.
<b>Integrations to upstream systems</b>	The platform will support the ability for settlement instructions to be received from upstream matching systems. However, work to coordinate and implement this is not planned to be within the scope of the project and is to be progressed separately.
<b>ETO exercise process: review timings and process</b>	Currently, when an ETO is exercised, ASX Clear notifies Participants of the resultant trade on the morning after the exercise process, effectively on T+1, resulting in a compressed timeline to achieve settlement on a T+2 basis. A move to T+1 would have flow-on implications, particularly in relation to the exercise of a call option and the release of collateral where relevant, and the frequency of fails under these circumstances may be impacted by a change to T+1. Further consideration and analysis is required and is outside the scope of the CHES replacement project.

# 4/ Release 2 Implementation Timeline and Risk-Mitigated Implementation Approach

This section outlines the proposed timeline and approach for the implementation of Release 2 of CHES replacement.

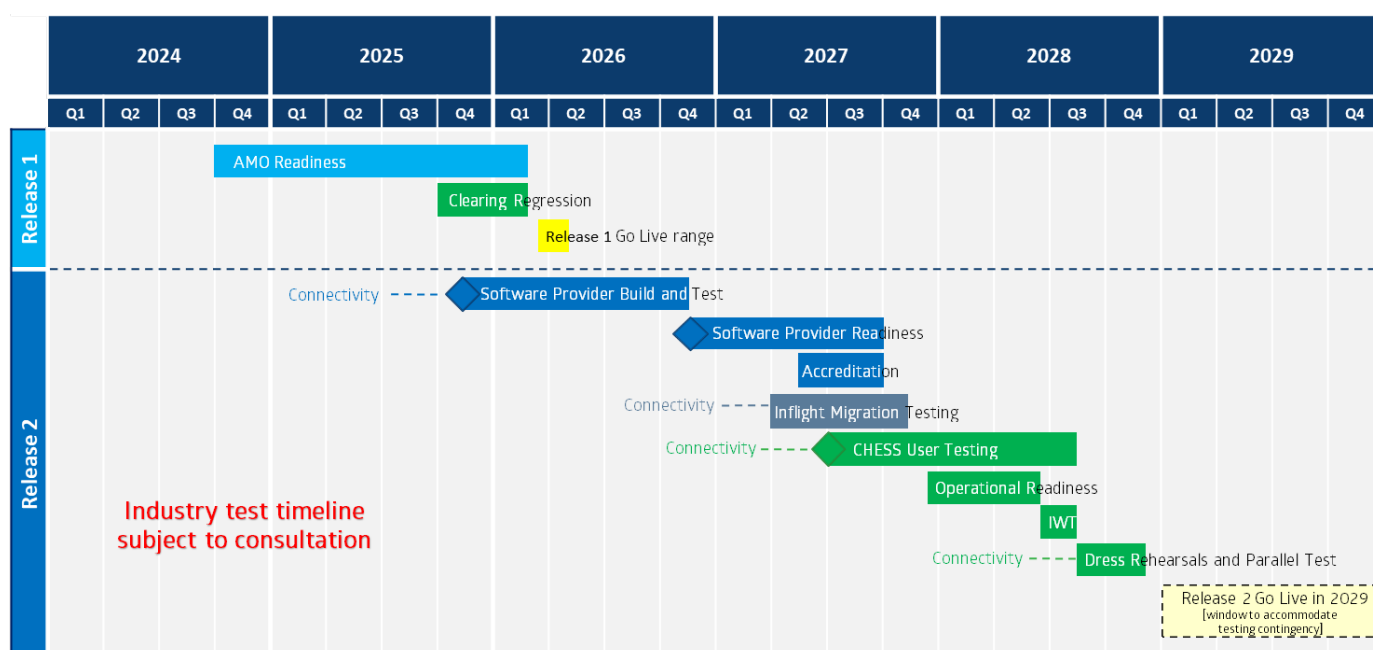
The proposed implementation approach for Release 2 incorporates industry feedback and addresses key considerations, including:

- **Minimising overlap** - Release 2 activities aim not to interfere with ongoing Release 1 efforts;
- **Early code access** - stable code is proposed to be available iteratively during the Software Provider Build and Test phase;
- **Accreditation on final code base** - Software Provider Accreditation will use the final ASX code base;
- **Flexible testing options** - CHES Users can test with or without accredited software;
- **Parallel testing** - Industry-wide parallel testing will form part of Industry Testing;
- **Avoiding overlap of mandatory tests** - critical industry tests will not overlap (such as Industry Wide Testing and dress rehearsals);
- **Holiday scheduling** - Industry Test activities will avoid the December/January holiday period; and
- **T+1 consideration** - the technical foundations to enable a future move to a T+1 settlement cycle is factored into Release 2 planning.

## 4.1. Release 2 Timeline

Figure 10 provides the proposed timeline for Release 2, including key delivery and implementation activities.

Figure 10: Proposed Release 2 timeline



### 4.1.1. Determining the Release 2 go-live date

ASX is seeking feedback on the proposed approach and timeline for the implementation of Release 2 outlined above. The proposed timeline would culminate in a go-live date for Release 2 and completion of the CHES replacement project in 2029, following successful industry testing, readiness and accreditation of the CHES replacement system.

The proposed implementation timeline for Release 2 will be informed by feedback from this consultation. ASX also acknowledges that external events or risks may arise during the delivery of the project which could impact key project dates and/or stakeholders' ability to adhere to readiness milestones.

The target go-live date is expected to be communicated to the market at least 12 months in advance. ASX will continue to provide updates on timelines to allow the industry to plan and prioritise work relating to CHES replacement during the build and test phases of the project.

***Q17. Which (if any) months should be avoided for CHES replacement Release 2 go-live? Please provide supporting detail for each month that should be avoided.***

- |                    |                     |
|--------------------|---------------------|
| <i>a) January</i>  | <i>g) July</i>      |
| <i>b) February</i> | <i>h) August</i>    |
| <i>c) March</i>    | <i>i) September</i> |
| <i>d) April</i>    | <i>j) October</i>   |
| <i>e) May</i>      | <i>k) November</i>  |
| <i>f) June</i>     | <i>l) December</i>  |

### 4.2. Release 2 implementation approach

As part of the CHES replacement project pause and reset, ASX reassessed its implementation approach and proposed a staged approach to resolve trade scalability as part of the new solution while minimising implementation risk.

In March 2024, ASX consulted on staging CHES replacement across two main releases and the implementation approach for Release 1. Industry responses indicated overall support for a staged implementation of CHES replacement. However, several stakeholders asked ASX to consider additional staging of Release 2 to further de-risk the implementation of Release 2.

ASX has assessed the options put forward by stakeholders against factors relating to operational risk, delivery risk, technical feasibility and market impact, and whether the alternative options would reduce overall implementation risk compared to implementing Release 2 as one release. The assessment indicated that implementing Release 2 as one release remains the approach that presents the least operational and delivery risk. It is also the option that is least likely to introduce additional technical complexity and delay completion of CHES replacement. However, we continue to discuss options to de-risk Release 2 with industry.

A summary of the assessment of options to further stage Release 2 is outlined in Table 14 below, including staging by Participant, Issuer and function. ASX's assessment indicates that these options would increase implementation risk and extend the implementation schedule relative to implementation of Release 2 as a single release.

Table 14: Risk assessment of options to further stage Release 2

How to transition	Key enabler	Summary of risk relative to Release 2 as one release
Stage by Participant	Full message backwards compatibility (EIS to ISO like-for-like)	<ul style="list-style-type: none"> <li>• Significant increase in delivery risk due to the need to implement a like-for-like interim release</li> <li>• Significant delay to implementing CHES replacement target state</li> <li>• Increase in operational risk and market impact due to a phased ISO release approach</li> <li>• Participant cutover risk remains with single cutover from like-for-like to enhanced ISO state</li> </ul>
Stage by Issuer	ASX and the market operate two separate production systems for settlement	<ul style="list-style-type: none"> <li>• Increase in operational risk and market impact due to operating two production systems for settlement</li> <li>• Increase in delivery risk relating to complexities of running two production settlement batches</li> </ul>
Stage by function a) Bilateral settlement matching b) Account maintenance c) Holdings d) Pass-through transactions	CHES Users to interface to both EIS and ISO 20022  Requires systems to be synchronised for functions in scope	<ul style="list-style-type: none"> <li>• a) Increase in delivery risk and market impact moving to final settlement matching ISO state</li> <li>• b) and d) Increase in delivery and operational risk due to need for interim like-for-like translation and complexities of data synchronisation between CHES and CHES replacement</li> <li>• c) Not technically feasible due to significant change required in current CHES</li> </ul>

Staging by **Participant** relies on centralised message translation to enable full EIS to enhanced or like-for-like ISO 20022 message backwards compatibility. Due to the current message volume and potential complexity of the Release 2 build, enhanced centralised message translation is not considered technically feasible. While like-for-like EIS to ISO 20022 message translation is technically feasible, it would introduce significant operational and delivery risk through an additional interim phase requiring additional complex build. Additionally, this option does not reduce implementation risk as it still requires a single cutover to achieve target state.



Staging by **Issuer** requires CHES Users to connect to both the existing CHES system and the CHES replacement system for settlement and would require ASX to operate both systems concurrently for an extended period. It would also require the operation of two settlement batches. As such, staging by Issuer would significantly increase operational and delivery risk for both Participants and ASX.

Staging by **function** would also require ASX to operate both the existing CHES and CHES replacement systems concurrently for an extended period. Staging by bilateral settlement matching, subregister account maintenance, and pass through transactions require data synchronisation between the systems, which introduces risk to data currency and the accuracy of system outputs. Additionally, staging by bilateral settlement matching or pass-through transactions require like-for-like centralised message translation which, as noted above, would still require a single cutover to achieve the target state. Staging by subregister holdings requires major changes to the existing CHES system to support interoperability between settlement and the subregister. This option is contrary to the objectives of the CHES replacement project.

In addition to the options outlined above, ASX also considered bringing forward implementation of ISO 20022 messaging for Clearing Participants. While technically feasible, this option would extend the implementation schedule without materially reducing implementation risk for Release 2 and would only benefit a limited subset of CHES Users.

Based on our assessment, ASX recommends proceeding with implementing Release 2 as one release. ASX will continue to work with industry to mitigate the overall risk profile of Release 2 through comprehensive implementation planning, including:

- CHES User and Software Provider Readiness testing, and industry readiness tracking;
- Industry Testing on Production like environments and data, including Industry Wide Testing and coordinated Parallel Test; and
- Implementation Dress Rehearsals, including contingency planning with CHES Users to replicate go-live cutover activities using Production data.

Further detail on Industry Test and Go-live Readiness activities is provided in sections 7 and 8 of this paper.

ASX intends to continue exploring ways to reduce the risk of implementing Release 2 as one release, including the potential to provide early access to migrated account data which may provide benefits to a broad range of CHES Users.

***Q18. Do you have any further feedback on ASX's proposed implementation approach for Release 2?***

## 5/ T+1 in the context of CHESSE replacement

On 23 April 2024, ASX published a [Whitepaper](#) in consultation with the ASX Business Committee's T+1 Working Group, to elicit wide-ranging industry feedback regarding the strategic case for a move to T+1 settlement for the Australian cash equities market.

ASX published a [Summary of Whitepaper Feedback](#) on 2 August 2024. The paper includes an update on the global settlement landscape and a summary of feedback received in response to ASX's Whitepaper.

Responses to the Whitepaper indicate that the market is supportive of a transition to a T+1 settlement cycle, however there is no feedback indicating that any such transition needs to be immediate. Respondents indicated they would like to continue to learn from overseas experiences and look to leverage processes and technologies that have been utilised as part of the transition. Most respondents indicated that they are not supportive of CHESSE replacement and T+1 being implemented at the same time, and the majority indicated that CHESSE replacement should be prioritised ahead of T+1. The investment community (for example ETF Issuers) indicated that it makes sense for Australia to transition to T+1 after most major global markets have transitioned to T+1, and the necessary operational and technological upgrades have been implemented.

Key industry feedback from the Whitepaper includes:

- the vast majority of respondents are **against CHESSE replacement and T+1 being run concurrently**;
- the majority think that **CHESSE replacement should be prioritised ahead of T+1**, however the timing implications of this were noted across responses;
- a transition to T+1 needs to be done in an orderly and logical manner; underpinned by robust technological solutions and accompanied by extensive testing, training and education; and
- a transition to T+1 needs to solve for existing and anticipated operational risks, to ensure the stability of the ecosystem.

### 5.1. ASX's risk-based approach to T+1 settlement

If a decision is made to move to T+1, ASX recommends T+1 be sequenced after Release 2, and proposes that a T+1 go-live date be at least 12 months after the CHESSE replacement Release 2 go-live date, and at a minimum 18 months after a decision to transition to T+1. While ASX does not propose to go live with T+1 at the same time as Release 2 of the CHESSE replacement system, the proposed scope for Release 2 includes functional changes relevant to a transition to T+1 (as outlined in section 5.2).

ASX's proposed approach to T+1 is informed by responses to the Whitepaper, 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 CHESSE replacement project. Chronological sequencing options for T+1 are outlined in Table 15.

Table 15: T+1 sequencing options

#	Potential T+1 timing	Considerations	Expected impact on CHES replacement
1.	<p><b>Immediately</b> before CHES replacement Release 1</p> <p>Indicative date: Late 2025 - 2026</p>	<ul style="list-style-type: none"> <li>• Benefits to Australia still uncertain</li> <li>• Limited time to 'watch and observe' the North American experience</li> <li>• The timetable for Europe and the UK as well as many Asia Pacific neighbours is still unclear</li> <li>• Substantial change for industry to absorb on top of existing projects</li> <li>• Less time for the market to automate back-offices, increasing the costs of administration</li> <li>• Foreign exchange markets have not indicated any change to settlement process in the near term to accommodate T+1 in markets such as Australia</li> <li>• Current CHES is less flexible and adapting to T+1 will take longer than under the CHES replacement system</li> <li>• Likely requirement to accelerate move to intra-day margining to facilitate T+1</li> </ul>	<p>Delay across both Release 1 and Release 2 of around 18-24 months (Release 2 2030-2031)</p> <p>Delaying Release 1 will postpone the removal of CHES capacity constraints</p>
2.	<p><b>Between</b> CHES replacement Release 1 and Release 2</p> <p>Indicative date: 2026-2028</p>	<ul style="list-style-type: none"> <li>• Will have more clarity on benefits to Australia and impact on North America and the global T+1 timetable will be more certain (noting there is very little guidance from Asian markets yet)</li> <li>• Industry change still significant considering overlay of Europe and the UK's potential move to T+1</li> <li>• Although Clearing will have been upgraded via Release 1, the benefits of upgrading settlement in Release 2 will not yet be available to assist the move to T+1</li> </ul>	<p>Delay to Release 2 of around 18-24 months (2030-2031)</p> <p>Delays new settlement functionality and other foundational changes such as interoperability</p>
3.	<p>At the <b>same time</b> as Release 2</p> <p>Indicative date: 2030+</p>	<ul style="list-style-type: none"> <li>• Going live with both projects simultaneously increases risk</li> <li>• Likely insufficient capacity across industry to handle both projects simultaneously</li> <li>• Feedback from Whitepaper that this is not a desirable option</li> </ul>	<p>Delay to Release 2 depending on industry readiness</p>
4.	<p><b>After</b> Release 2</p> <p>Indicative date: 2030+</p>	<ul style="list-style-type: none"> <li>• Pushes T+1 target go-live beyond current targets for major international markets (noting that European and UK dates are not yet confirmed)</li> <li>• Simplifies the move to T+1 in the CHES replacement system as core enabling functionality will be built into the new system</li> <li>• Industry back-office automation will likely be embedded and manual processes to handle T+1 mature</li> </ul>	<p>No delay to Release 2 (2029 target go-live)</p>

ASX considers that prioritising the CHES replacement project and making the functional changes in the CHES replacement system to support a transition to T+1 without going live until after CHES replacement is complete has a number of benefits. It would enable ASX to take advantage of the flexible architecture and out of the box improvements of the CHES replacement system. It would also enable continued monitoring of global and domestic developments to inform ASX's approach and provide greater flexibility and time for implementation planning. On balance, ASX recommends implementation of the CHES replacement system ahead of a move to T+1 to provide maximum benefit to industry.

Industry feedback is sought on this recommendation, as well as any views on the alternative options.

***Q19.1 If a decision is made to move to T+1, is your organisation supportive of ASX's proposal that a T+1 go-live date be 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?***

- a) Supportive***
- b) Conditionally supportive (please explain below)***
- c) Not supportive (please explain below)***
- d) Not applicable to my organisation***

***Please provide reasoning for your response above***

***Q19.2 Are there any other factors that ASX should consider regarding approach and timeline for a transition to T+1 settlement? If so, please provide further detail***

## 5.2. T+1 scope in CHES replacement

ASX has commenced discussions with industry through the BDWG to understand the technical and operational changes that may be required, as well as other industry needs, to support a transition to T+1 settlement.

The key high-level functional considerations that emerged from the discussion are listed in Table 16. Five of the twelve scope items listed are proposed to be in scope for Release 2. Details on those scope items and how T+1 requirements are considered as part of those items are outlined in the related sections of this document as referenced.

*Table 16: T+1 scope in CHES replacement*

#	Topic	Status	Reference
1	ETO exercise process review	Scope being progressed outside of CHES replacement	Section 3.11.4
2	Cash Market Margin (CMM) introduction of intra-day margin and timing	Scope being progressed outside of CHES replacement	Section 3.11.3
3	Operating hours and cutoffs	In scope for Release 2	Section 3.9
4	Improve pre-settlement matching processes	In scope for Release 2	Section 3.5.2
5	Pre-batch simulation/predictive analysis	Further consideration and engagement required	N/A
6	Securities lending considerations	Further consideration and engagement required	N/A
7	Continuation of DvP model 3 settlement with a single batch	No change	N/A
8	Timing of CHES Settlement Batch processing	Further consideration and engagement required	Section 3.5.3
9	Enhanced Payment Provider approval process	In scope for Release 2	Section 3.5.4
10	Scheduled times (ASX Settlement Operating Rules) review for Share Registry workflows to encourage automation	Further consideration and engagement required	N/A
11	Ex transaction processing (Cum Entitlement Balances)	In scope for Release 2	Section 3.5.5
12	ETF settlement process review for efficiencies	In scope for Release 2	Section 3.5.7

No change is anticipated to DvP model 3 settlement with a single batch. Alternative proposals have been considered and industry feedback to date indicates a strong consensus that a single batch is the preferred model for Australia at this time.

# 6/ Interoperability

While anticipating future market needs relating to interoperability presents challenges, ASX has specified interoperability as a design requirement for the CHES replacement system.

## 6.1. Technical foundations to enable interoperability in CHES replacement

The CHES replacement project proposes to deliver the technical foundations for interoperability in the Australian cash equities market.

The CHES replacement system features:

- **Modular architecture:** separate components for clearing, settlement, depository and ancillary services (for example corporate actions processing).
- **Proven software solution:** TCS BaNCS MI, a software solution that supports interoperability in other markets. For example, Euroclear Finland (which is connected to T2S and uses TCS BaNCS MI), operates with interoperable clearing, external Securities Settlement Facility (SSF) (T2S), and cross-Central Securities Depository (CSD) settlement (CSD links).
- **ISO 20022 support:** business processes aligned with international best practices, common across competing facilities.
- **API-enabled architecture:** solution architecture that supports third party data access over API.

ASX has considered various models for interoperability across major international markets in each of clearing, settlement and depository. The Australian market differs from many global markets in that we do not have a separate CSD; rather the securities register comprises both the CHES Subregister and Issuer Sponsored Subregister.

Given that there are multiple potential models of interoperability and different combinations of these models (for example clearing only, versus clearing and settlement), the CHES replacement system will have the technical capability to support multiple scenarios that provide the broadest support for different interoperability models. These scenarios are outlined in Table 17.

In the absence of a new clearing or settlement entrant to test with, and to insulate the market from these changes, testing is planned to be limited to a separately configured version of the CHES replacement system and will not require market participation. This approach may be revisited in the event that a new entrant emerges.

Figure 11: CHES replacement interoperability design

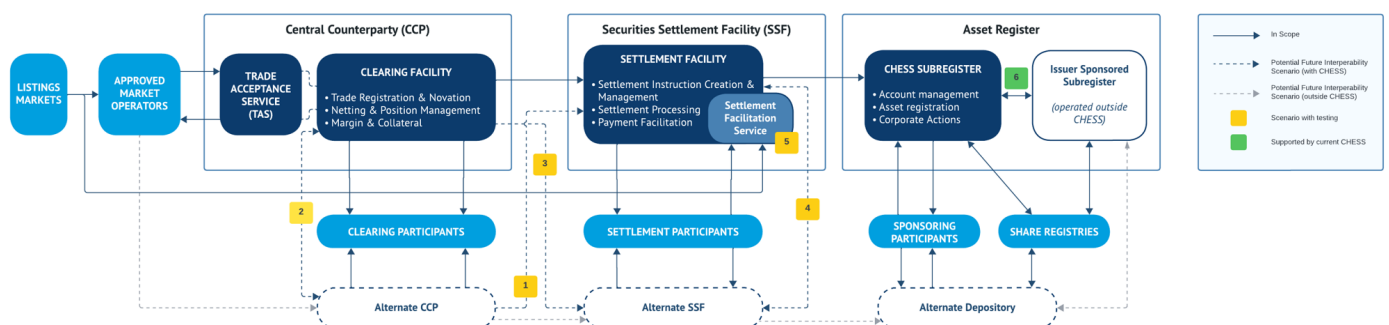


Table 17: Interoperability scenarios

	#	Scenario	Detail	Technical Foundations For	Examples
Competing clearing facility	1	Settlement for more than one CCP	Settlement Facility's ability to receive novated positions from multiple CCPs and process these for settlement in a single settlement batch	Preferred clearing <sup>7</sup>	CREST (UK), T2S (EU) settlement for multiple CCPs
	2	Clearing with an external CCP as counterparty	Clearing Facility's ability to register trades and maintain positions against an external Clearing Facility	Preferred clearing and interoperable clearing <sup>8</sup>	CREST (UK), T2S (EU) settlement for multiple CCPs
Competing settlement facility	3	Clearing trades for an external Settlement Facility	Clearing Facility's ability to register trades and accumulate positions and pass these for settlement at an external Settlement Facility	Settlement with an external Settlement Facility where ASX Clear remains the CCP	LCH clearing for settlement at CREST (UK)
	4	Settlement with an external Settlement Facility	Settlement Facility's ability to support a DvP settlement with an external SSF and/or CSD	Interoperable settlement between Settlement Facilities	TMX (Canada) and DTCC (US), Euroclear (Finland and Sweden)
	5	Facilitation of third party DvP transactions	The existing Settlement Facilitation Service provides the ability for Settlement Participants, acting on behalf of listings markets, to enter non-cleared DvP settlement instructions	Settlement facilitation for non-cleared transactions	An Approved Listing Market Operator (AU)
Competing subregistry or CSD	6	Transfer of assets between depositories	The existing transfers/conversions processes between subregisters demonstrates the ability for the system to move assets in and out of the CHES Subregister.	Alternative depositories or asset registers	Issuer Sponsored Subregister (AU)

### Release 1

As part of Release 1, ASX will technically separate the Clearing Facility from the Settlement Facility, demonstrating the modular architecture and ability for the Clearing Facility (which uses the TCS BaNCS MI product) to register trades, build positions and provide these to the Settlement Facility, and for the existing Settlement Facility to receive novated positions from a separate system.

In addition, as part of Release 1, ASX will provide all AMOs access to clearing and settlement services through the same standardised interface, in a non-proprietary format (using FIX messages). The CHES replacement system will also be designed to be multi-CCP/multi-SSF compatible by specifically indicating the intended CCP/SSF in the AMO trade registration message (noting this would be limited to ASX Clear and ASX Settlement in the absence of another facility).

<sup>7</sup> Preferred clearing has multiple clearing houses with trading Participants choosing one CCP for both buy and sell sides and where each clearing house does not have obligations against each other. This model is supported in Europe and the UK.

<sup>8</sup> Interoperable clearing means multiple clearing houses with trading Participants choosing different clearing houses for buy and sell side and where each central counterparty has obligations to each other. This model is supported in Europe and the UK.

## Release 2

In Release 2, ASX will test six specific core scenarios to demonstrate and confirm the technology can support multiple combinations of interoperability models (see Figure 11). The scenarios are aimed at demonstrating that the CHES replacement system provides the technical foundations for interoperability in the absence of a new entrant. Additionally, the CHES replacement system will continue to support existing functionality that allows the movement of assets between registers (Issuer sponsored to CHES transfers and conversions), and the Settlement Facilitation Service which provides the ability for external listings markets to provide transactions for settlement.

To reduce additional testing risk, complexity and impact on the market, interoperability testing is planned to be performed on a separately configured version of the CHES replacement system by ASX and not made available in external test environments. This approach will be reconsidered in the event that a new clearing or settlement facility emerges prior to Release 2 go-live. The testing performed by ASX is proposed to be subject to review by an external party.

Additionally, in Release 2:

- **Technical documentation** will delineate clearing, settlement and subregister functionality.
- **ISO 20022 messaging will be functionally segregated**, and (where applicable) include the ability to specify the relevant clearing and/or settlement facility in the message.
- **Roles and responsibilities will be functionally segregated** between Clearing Participants, Settlement Participants and Sponsoring Participants.

## 6.2. Achieving interoperability with a competing Clearing and/or Settlement Facility

While ASX plans to deliver the technical foundations for interoperability as part of the CHES replacement system, additional work outside the scope of the CHES replacement project would be required to enable another facility to interoperate with the CHES replacement system. At a high-level, this may include:

- Explaining how a competing service will interoperate with ASX;
- Determination of which model is to be supported, such as whether another provider is operating a clearing facility, settlement facility or both and what models of clearing and settlement would be supported;
- Finalisation of the technical interfaces between interoperable services including any data sharing arrangements;
- Development of any additional technical functionality to support industry requirements in relation to the chosen interoperability model;
- Industry-wide testing of interoperability including the CHES replacement system, another facility and users of that other facility;
- ASX Clear Operating Rules and ASX Settlement Operating Rule changes to specify how the different facilities will operate together; and
- Risk management frameworks, including changes in relation to the management of margin, collateral and how to manage a default across facilities.

If a new entrant emerges before implementation of the CHES replacement system, the proposed approach outlined above could be expanded or refined to prioritise more specific requirements for interoperability in the context of the entrant's business model. However, this would need to be assessed against the broader CHES replacement project plan, timelines and scope.

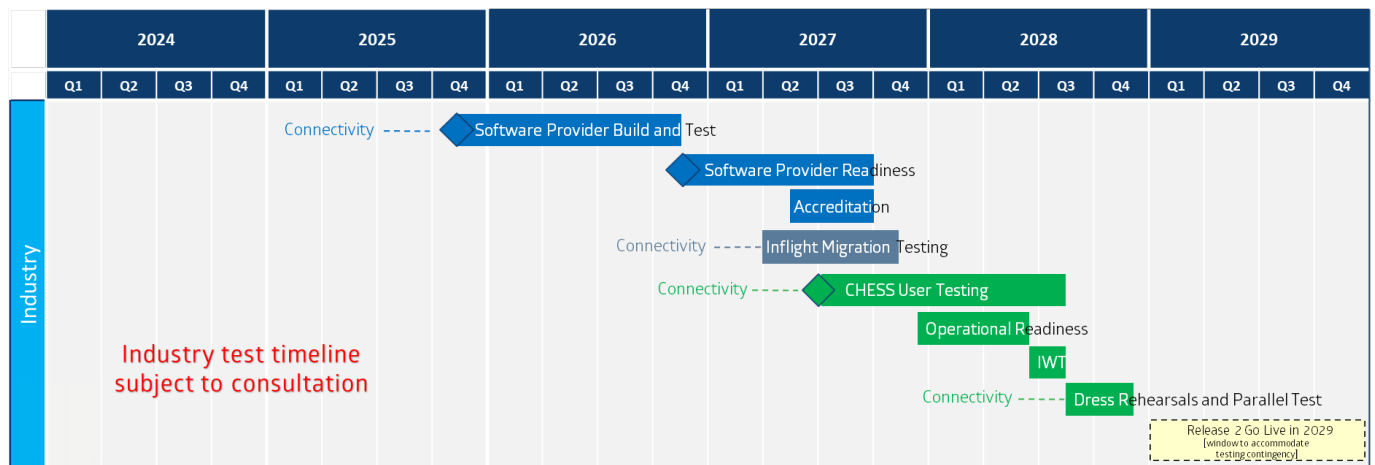


# 7/ Release 2 Industry Testing

## 7.1. Overview of proposed Release 2 Industry Testing

Section 7 of this paper outlines ASX’s proposed approach to the various industry test phases included in the Release 2 project timeline (see Figure 12), all of which are proposals, subject to industry feedback. The list of Industry Readiness documentation to support this approach, including ASX’s proposed publication timing, can be found in section 9.

Figure 12: Proposed Release 2 project timeline



The proposed Release 2 industry test phases are set out in Table 18 below.

Table 18: Proposed Release 2 Industry Test phases

Industry test phase	Who is involved	Proposed timing
Software Provider Build and Test	Software Providers*	Nov 2025 – Nov 2026
Software Provider Readiness	Software Providers*	Nov 2026 – Sep 2027
Software Provider Accreditation	Software Providers*	May 2027 – Sep 2027
CHES User Readiness	CHES Users	Jul 2027 – Jul 2028
Inflight Migration Testing	Software Providers* CHES Users	Apr 2027 – Aug 2027 Sep 2027 – Nov 2027
Operational Readiness	CHES Users	Dec 2027 – May 2028
Industry-Wide Testing	CHES Users	May 2028 – Jul 2028
Implementation Dress Rehearsals (IDRs)	CHES Users	Aug 2028 – Nov 2028
Industry Parallel Test	CHES Users	Aug 2028 – Nov 2028

\* Software Providers include both those CHES Users developing in-house systems as well as external vendors.

## 7.2. Proposed Release 2 industry test phases for Software Providers<sup>9</sup>

### 7.2.1. Software Provider Build and Test

The Software Provider Build and Test phase allows Software Providers to connect to ASX's Industry Test Environment (ITE) to commence testing. ASX's proposed sequence for feature delivery is set out below:

- Drop 1 - accounts and account transfers
- Drop 2 - clearing upgrade and settlement instructions
- Drop 3 - batch settlement and Share Registry interfaces
- Drop 4 - corporate actions and payments
- Drop 5 - default management and collateral

ASX proposes to release the functional and technical specifications for each drop at least 3 months before the drop becomes available in ITE. The timing and sequence of feature delivery is subject to change based on analysis and industry feedback. We encourage feedback and further discussion on the preferred delivery sequence of Release 2 functionality to support early build and test.

### 7.2.2. Software Provider Readiness

The Software Provider Readiness test phase will allow Software Providers to complete functional and non-functional testing and prepare for accreditation. This will include testing of network failure events to evaluate resilience and recovery, and testing of security features to ensure the system's defences are robust and capable of protecting against potential threats and vulnerabilities.

In addition, Software Providers will have the opportunity to perform performance testing on their interface(s) while connected to the CHES replacement system.

### 7.2.3. Software Provider Accreditation

ASX proposes that all Software Providers be required to accredit for all external systems that will connect to the CHES replacement system. This accreditation is a key element in a broader framework of requirements designed to uphold the stability and integrity of the Clearing and Settlement facility.

Software Provider Accreditation will focus on validating two critical components:

- **Connectivity accreditation**  
This confirms that Software Providers' systems can establish and maintain a secure and resilient connection to the CHES replacement system. It is critical that the underlying infrastructure supports reliable and secure communications between Software Providers and the CHES replacement system.
- **Messaging accreditation**  
This confirms the compliance of the new message formats, particularly in the context of Release 2, which adopts ISO messaging. Messaging accreditation requires systems to demonstrate that they can accurately generate, send and receive ISO message constructs before these systems are deployed for use by CHES Users in the production environment.

CHES Users must perform operational readiness testing on accredited software.

The final Release 2 build, including resolution of identified defects, is proposed to be deployed to ITE prior to the commencement of Accreditation. Accreditation guidelines, including scenarios for Accreditation, will be made available in the Release 2 Industry Test Approach and Release 2 Accreditation Guide documents.

<sup>9</sup> In the context of this section, Software Providers refer to both third party vendors and CHES Users developing in house.

## 7.2.4. Inflight Migration Testing (Software Providers)

Inflight migration testing will allow Software Providers to test workflows that start in CHES and finish in the CHES replacement system. Inflight migration testing will also support the ability to test the modification of data that has been migrated to CHES replacement (for example accounts and holdings). This phase is expected to primarily target Software Providers developing software for Clearing and Settlement Participants and Settlement-only Participants.

*Q20.1 With the information currently provided, is your organisation supportive of the time for Software Providers to complete their build and test in preparation for accreditation?*

*Please explain, including relevant detail if not supportive*

*Q20.2 To assist Software Providers with their industry testing, do you have any further feedback on testing scope, duration or approach?*

## 7.3. Proposed Release 2 industry test phases for CHES Users

### 7.3.1. CHES User Readiness

CHES User Readiness aims to enable CHES Users to become familiar with new or upgraded solutions delivered by their Software Providers. This includes functionality changes, integration with CHES Users' internal upstream, downstream and reporting systems, testing business process failure scenarios with ASX, as well as undertaking internal testing to provide confidence that they are ready for the operational readiness phase. At a minimum, CHES Users will be required to complete a set of test scenarios provided by ASX, which will be detailed in the Release 2 Guide to Operational Readiness targeted to be published Q1 2027. In addition, CHES Users will be encouraged to undertake additional test scenarios to meet their own business requirements. This will enable CHES Users to develop their processes and procedures in preparation for operational readiness and go-live.

In addition, CHES Users will have the opportunity to perform performance testing on their interface(s) while connected to the CHES replacement system.

### 7.3.2. Inflight Migration Testing (CHES Users)

Inflight migration testing will allow CHES Users to test workflows that start in CHES and finish in the CHES replacement system. It will also support the ability to test the subsequent modification of data in CHES that has been migrated to CHES replacement (for example accounts and holdings). The testing will be available to both Software Providers and CHES Users, but ASX proposes that they be scheduled separately. Specifically, Software Providers would conduct inflight migration testing during the Software Provider readiness test window whereas CHES Users would conduct inflight migration testing during the CHES User readiness phase.

### 7.3.3. Operational Readiness

Operational readiness testing provides ASX and the market with assurance that CHES Users are ready for go-live and that they are able to successfully operate their BAU functions using the CHES replacement system. As part of the operational readiness test phase, CHES Users will need to demonstrate the execution of required end-to-end business flows using accredited software by successfully completing the required operational scenarios for their particular CHES User type (including exception handling). ASX proposes that the Release 2 Industry Test Approach document (for publication in around Q2 2025) includes a summary of operational readiness scenarios.

### 7.3.4. Industry Wide Testing (IWT)

The primary purpose of industry wide testing is to provide the opportunity for CHESSE Users to participate in a simulated production-like working environment. ASX proposes to facilitate mandatory, coordinated industry-wide testing to provide CHESSE Users the ability to perform their business-related functions with other counterparties. ASX will assist in coordinating counterparties and provide scheduled market events including batch settlement and corporate action events, to enable all CHESSE Users to successfully perform their required minimum functional scenarios. This will also enable the entire industry to perform testing as a 'day in a life' (including exception handling events) in clearing and settlement functions across all CHESSE Users.

A coordinated peak volume test is also being considered to either form part of IWT or a similar phase of coordinated testing. The goal is to provide CHESSE Users with the assurance that they, their counterparties and ASX are ready to operate end-to-end functional processes in a market-like environment under production volume.

### 7.3.5. Industry Parallel Test

The parallel test phase will enable CHESSE Users to compare EIS and ISO message feeds for select business processes. ASX will continue to work closely with CHESSE Users on the parallel testing approach, including defining in-scope processes and relevant test scenarios. The confirmed test scenarios will be documented in the relevant industry testing documentation.

Benefits of conducting parallel testing include:

- Providing an opportunity to compare ISO messages (for limited processes) generated from the target state against the equivalent EIS messages generated from the current state;
- Validating the functionality of CHESSE Users' ISO messaging within the production-like infrastructure; and
- Providing an opportunity to monitor system performance and gain hands-on experience with the live system environment before the official go-live, helping to facilitate a smoother transition.

It is expected that CHESSE Users will need to replicate their production feeds into the CHESSE replacement parallel test environment in ISO format for all agreed business processes in scope. This will enable a comparison of ISO messages generated during parallel testing to their equivalent production EIS messages. Further market engagement is planned through the Implementation and Transition Working Group to ensure that the scope, limitations and market effort are agreed and captured as part of the Release 2 Guide to Industry Parallel Test document.

***Q21.1. With the information currently provided, is your organisation supportive of the time for CHESSE Users to complete their testing in preparation for Operational Readiness?***

***Please explain, including relevant detail if not supportive***

***Q21.2 To assist CHESSE Users with their industry testing, do you have any further feedback on testing scope, duration or approach?***

## 8/ Release 2 Go-Live Readiness

The Release 2 cutover weekend will involve the migration and verification of all essential data required for settlement and subregister services in the replacement system and remaining data required for the clearing service. This will include remaining system actors and reference data, accounts and holder details, holdings and inflight transactions with an expected workflow completion date after the cutover weekend. Controlling Participants<sup>10</sup> will be required to convert registration details stored in their back-office systems prior to the cutover weekend. ASX will provide a tool to assist with this conversion as well as to aid in identifying any data quality issues that must be remediated prior to go-live. A suite of customer migration reports will be securely distributed to CHESS Users after completion of ASX data migration activities to enable validation of the data migration in their respective systems.

The Release 2 cutover window is planned to commence on the weekend following the completion of regular end-of-day Friday activities to minimise industry disruption. The cutover window includes ASX data migration and reconciliation activities, CHESS User change deployment and verification, final Go/No-Go checkpoint and a contingency period. The sequence of Release 2 cutover activities will be validated through a series of planned Implementation Dress Rehearsals prior to the go-live of Release 2.

### 8.1. Implementation Dress Rehearsals

ASX will coordinate a series of Implementation Dress Rehearsals (IDRs) with the industry prior to the Release 2 go-live. Participation in the IDRs by all CHESS Users is mandatory, as it involves a comprehensive walkthrough of the end-to-end activities that both CHESS Users and ASX will perform during the go-live weekend. These rehearsals will take place in ASX's staging environment, which will mirror the full infrastructure and non-functional characteristics of the final production environment.

IDRs will allow CHESS Users to:

- Validate, test and refine their cutover strategies, ensuring the sequence of weekend activities is accurately planned;
- Make necessary adjustments to the go-live runsheet to guarantee that all tasks can be completed within the allotted cutover timeframe;
- Test their communication lines with ASX during cutover events;
- Evaluate the cutover incident management protocols; and
- Assess the back-out procedures in case of unforeseen issues.

Further details, including the timing of IDRs, will be provided in the Release 2 Cutover and Migration Approach document, based on feedback from this consultation and further engagement. ASX will provide a detailed run sheet outlining all required activities for the IDRs, including the timing of tasks and contact information for support.

ASX plans to conduct disaster recovery testing with CHESS Users in the ASX staging environment, which will have a production-level setup and security measures. Disaster recovery events may be scheduled during the IDR weekends. ASX will engage with CHESS Users to confirm IDR and disaster recovery plans.

Working groups will be used to agree cutover activities and solicit industry input on specific changes such as the migration of Participant data, inflight transactions, customer migration reports and verifications required by CHESS Users.

***Q22. To assist CHESS Users with their go-live readiness, do you have any further feedback on testing scope, duration or approach?***

<sup>10</sup> A controlling participant is Settlement Participant that can affect the movement of Financial Products for Holdings under its control.

# 9/ Industry Readiness Documentation

Comprehensive project and technical documentation will be provided, 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 19)
- Other project related collateral and artefacts.

Documentation will be categorised by functional areas and CHES User types, and will be available on a centralised documentation portal which will incorporate multiple information sources such as ASXOnline and SWIFT MyStandards.

Project and technical documentation will be developed and released iteratively in conjunction with the delivery of functionality following industry engagement in relevant working groups. ASX will aim to provide Release 2 industry readiness documentation at least three months in advance of a scheduled release to an ITE and/or the commencement of an industry test phase.

A detailed documentation schedule will be communicated as part of the standing agenda of the Technical Committee and published on both ASX's website and technical documentation portal. The proposed publication dates in Table 19 are aligned with the proposed delivery timeline of Release 2, which is subject to refinement based on this consultation.

Table 19: Planned Release 2 Industry Test documentation

Document	Purpose of document	Audience	Proposed publication date
<b>Functional and Technical Specifications</b>	Provide a detailed specification of all ISO messages including message structures, rules and message flow diagrams.	CHES Users and their Software Providers	Q3 2025 – Q3 2026 Incrementally, in line with the 5 feature drops outlined in section 7.2.1
<b>Release 2 Industry Test Approach</b>	Describe the detailed approach and responsibilities, timing, entry and exit criteria and expected test outcomes for each Industry Test phase.	CHES Users and their Software Providers	Q2 2025
<b>Release 2 Connectivity Guide</b>	Detail the technical connectivity requirements to connect to the CHES replacement system including connectivity method(s), network details and security details.	CHES Users and their Software Providers	Q3 2025
<b>Release 2 Accreditation Guide</b>	Provide an overview of the CHES replacement Accreditation phase including the accreditation process, connectivity scenarios and message scenarios.	CHES Users and their Software Providers	Q3 2026
<b>Release 2 Guide to Operational Readiness</b>	Provide an overview of the CHES replacement Operational Readiness phase including the operational readiness process and mandatory scenarios.	CHES Users	Q1 2027
<b>Release 2 Cutover and Migration Approach</b>	Detail the cutover and migration approach, key activities and responsibilities.	CHES Users and their Software Providers	Q3 2027
<b>Release 2 Guide to Industry Parallel Test</b>	Provide details of key activities and expectations regarding test and scope boundaries, and expected results including entry and exit criteria.	CHES Users and their Software Providers	Q4 2027
<b>Cutover Runbook</b>	Provide CHES Users with key tasks and milestones with an outline of detailed steps including planned timing. The runbook will be used in dress rehearsals and refined as required ahead of the final go-live event. This document will also include the steps required to back-out.	CHES Users	Q1 2028

# 10/ Operating Rule and Fee Changes

## **Operating Rule Changes**

Based on the scale and scope of the proposed changes to CHESSE outlined in this paper, we anticipate that substantive changes will be required to be made to the ASX Clear Operating Rules and Procedures and the ASX Settlement Operating Rules and Procedures (together the 'Rules and Procedures').

We propose to consult on the changes to the Rules and Procedures in 2027. While ASX will aim to consult on all Rules and Procedures changes at the same time, additional consultations may be required.

Given the extensive feedback provided by stakeholders on the draft Rules and Procedures in the previous iteration of the CHESSE replacement project, we propose to use material previously consulted on where relevant and appropriate. We will also have regard to new feedback received from stakeholders with a view to minimising the time and effort required to review the new Rules and Procedures.

## **Fee Changes**

In addition, we plan to engage with CHESSE Users on the fee structures for any new and changing services. We will carefully consider the impact on Participant costs in assessing changes which affect workflows.



# 11/ Summary of Feedback Requested

ASX welcomes stakeholder feedback on the proposals outlined within this consultation paper, as well as feedback on other relevant areas of interest or concern.

Responses to this consultation are requested by 13 September 2024, via:

- an electronic form available [here](#)
- an editable [Excel form](#), submitted by email to [CHESSReplacement@asx.com.au](mailto:CHESSReplacement@asx.com.au)
- email to [CHESSReplacement@asx.com.au](mailto:CHESSReplacement@asx.com.au) in a format suitable to your organisation.

ASX will publish a response to the feedback received from this consultation paper, targeted for Q4 2024.

Included below is a list of all questions asked throughout this paper.

## Organisational housekeeping:

- Confidential response (yes/no)
- Name
- Email
- Organisation
- Organisation type (please select all that apply)
  - AMO
  - Clearing and Settlement Participant
  - Settlement-only Participant
  - Payment Provider
  - Share Registry
  - Software Provider
  - Industry Association
  - Other (please specify)

**Q1.** Please provide any feedback on the proposed design, scope, and schedule for Release 2.

**Q2.** Please provide any feedback on the proposed testing and industry readiness approach for Release 2.

**Q3.** Please provide any feedback on the proposed approach to interoperability for CHES replacement.

**Q4.** Please provide any feedback on the proposed timing and approach regarding transitioning to a T+1 settlement cycle (noting that any such transition will not form part of the CHES replacement project).

- Q5.** Does your organisation support the scope of the clearing upgrades for CHES replacement Release 2?
- a) Supportive
  - b) Conditionally supportive (please explain below)
  - c) Not supportive (please explain below)
  - d) Not applicable to my organisation

Please provide context to your response above

- Q6.1.** Would your organisation use an optional segregated account structure if offered by the CHES replacement system?
- a) Yes – as part of Release 2
  - b) Possibly – as part of Release 2
  - c) Possibly – post Release 2
  - d) No current intention
  - e) Not applicable to my organisation

- Q6.2.** If you answered yes or possibly to Q6.1, which account structure would suit your organisation best?
- a) Segregated house and omnibus client
  - b) Individual client segregated positions
  - c) Segregated positions for third party clearers
  - d) Not applicable to my organisation
  - e) Other (please specify below)

Please provide context to your response above

- Q6.3.** Please provide any further information about the proposed optional segregation models.

- Q7.** Does your organisation support the proposed scope of settlement for CHES replacement Release 2?
- a) Supportive
  - b) Conditionally supportive (please explain below)
  - c) Not supportive (please explain below)
  - d) Not applicable to my organisation

Please provide context to your response above

- Q8.** Does your organisation support simplifying the processing of 'ex transactions' (i.e. Cum Entitlement Balances)?
- a) Supportive
  - b) Conditionally supportive (please explain below)
  - c) Not supportive (please explain below)
  - d) Not applicable to my organisation

Please provide context to your response above

- Q9.** Does your organisation support the proposed scope of subregister and Issuer sponsored processes for Release 2?
- a) Supportive
  - b) Conditionally supportive (please explain below)
  - c) Not supportive (please explain below)
  - d) Not applicable to my organisation

Please provide context to your response above

**Q10.** Does your organisation support the proposal to enhance registration details and allow for the sharing of additional investor information?

- a) Supportive
- b) Conditionally supportive (please explain below)
- c) Not supportive (please explain below)
- d) Not applicable to my organisation

Please provide context to your response above

**Q11.** What additional investor information would your organisation find useful to be transmitted via CHES?

- a) Tax File Numbers (TFNs), Australian Business Numbers (ABNs) and Australian Company Numbers (ACNs)
- b) Foreign Account Tax Compliance Act (FATCA) / Common Reporting Standard (CRS) details such as tax residency and foreign tax identification number(s)
- c) Bank account details
- d) Mobile numbers
- e) Other (please specify)

Please provide context to your response above

**Q12.1** Does your organisation support the proposal for corporate action elections without payment (e.g. DRP/BSP) within the scope of Release 2 of CHES replacement?

- a) Supportive
- b) Conditionally supportive (please explain below)
- c) Not supportive (please explain below)
- d) Not applicable to my organisation

Please provide context to your response above

**Q12.2** Does your organisation support the proposal for corporate action elections with payment (e.g. Rights, Share Purchase Plans) within the scope of Release 2 of CHES replacement?

- a) Supportive
- b) Conditionally supportive (please explain below)
- c) Not supportive (please explain below)
- d) Not applicable to my organisation

Please provide context to your response above

**Q13.** Does your organisation support the proposal for the ability to transmit additional corporate action distribution information within the scope of Release 2 of CHES replacement?

- a) Supportive
- b) Conditionally supportive (please explain below)
- c) Not supportive (please explain below)
- d) Not applicable to my organisation

Please provide context to your response above

**Q14.** Does your organisation support the proposed connectivity and interface options in CHES replacement Release 2?

- a) Supportive
- b) Conditionally supportive (please explain below)
- c) Not supportive (please explain below)
- d) Not applicable to my organisation

Please provide context to your response above

**Q15.1** Would your organisation be interested in using an optional data API if offered by the CHES replacement system as part of Release 2?

- a) Yes
- b) Possibly (please explain below)
- c) No current intention
- d) Not applicable to my organisation

Please provide context to your response above

**Q15.2** If you responded yes or possibly to Q15.1, what would your organisation use the data API for?

- a) Holding Balances
- b) Other (please specify below)

Please provide context to your response above

**Q16.** Given the other strong security controls, do you support ASX's proposal not to use ISO 20022 message signing of both input and output?

- a) Supportive
- b) Conditionally supportive (please explain below)
- c) Not supportive (please explain below)
- d) Not applicable to my organisation

Please provide context to your response above

**Q17.** Which (if any) months should be avoided for CHES replacement Release 2 go-live? Please provide supporting detail for each month that should be avoided.

- |             |              |
|-------------|--------------|
| a) January  | g) July      |
| b) February | h) August    |
| c) March    | i) September |
| d) April    | j) October   |
| e) May      | k) November  |
| f) June     | l) December  |

**Q18.** Do you have any further feedback on ASX's proposed implementation approach for Release 2?

**Q19.1** If a decision is made to move to T+1, is your organisation supportive of ASX's proposal that a T+1 go-live date be 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?

- a) Supportive
- b) Conditionally supportive (please explain below)
- c) Not supportive (please explain below)
- d) Not applicable to my organisation

Please provide reasoning for your response above

**Q19.2** Are there any other factors that ASX should consider regarding approach and timeline for a transition to T+1 settlement? If so, please provide further detail.

**Q20.1** With the information currently provided, is your organisation supportive of the time for Software Providers to complete their build and test in preparation for accreditation?

Please explain, including relevant detail if not supportive

**Q20.2** To assist Software Providers with their industry testing, do you have any further feedback on testing scope, duration or approach?

**Q21.1.** With the information currently provided, is your organisation supportive of the time for CHESS Users to complete their testing in preparation for Operational Readiness?

Please explain, including relevant detail if not supportive

**Q21.2** To assist CHESS Users with their industry testing, do you have any further feedback on testing scope, duration or approach?

**Q22.** To assist CHESS Users with their go-live readiness, do you have any further feedback on testing scope, duration or approach?

# APPENDIX A – List of Acronyms

Acronym	Description
ABN	Australian Business Number
ACN	Australian Company Number
ACSA	Australian Custodial Services Association
AFMA	Australian Financial Markets Association
ALC	Australian Liquidity Centre
AMO	Approved Market Operator
AMQP	Advanced Message Queuing Protocol
API	Application Programming Interface
ASIC	Australian Securities and Investments Commission
ASX	ASX Limited
AWS	Amazon Web Services
BAH	Business Application Header
BAU	Business As Usual
BDWG	Business Design Working Group
CCP	Central Counterparty
CS	Clearing and Settlement
CSD	Central Securities Depository
CSR	Certificate Signing Request
CHESS	Clearing House Electronic Subregister System
CHESS Users	AMOs, Clearing Participants, Settlement Participants, Payment Providers and Share Registries
CMM	Cash Market Margin
CRS	Common Reporting Standard
DRP	Dividend Reinvestment Plan
DvP	Delivery versus payment
EIS	<a href="#">CHESS External Interface Specifications</a>
ESA	Exchange Settlement Account
ETF	Exchange Traded Fund
ETO	Exchange Traded Option

Acronym	Description
FATCA	Foreign Account Tax Compliance Act
FIX	Financial Information eXchange (FIX®) Protocol
FSS	Financial Stability Standards (published by the Reserve Bank of Australia)
HIN	Holder Identification Number
IDR	Implementation Dress Rehearsal
ISO	International Organization for Standardization
IWT	Industry Wide Testing
ITE	Industry Test Environment
mFund	Managed fund settlement service
MI	Market Infrastructure
NBO	Net Broker Obligation
RBA	Reserve Bank of Australia
RFI	Request for Information
RITS	Reserve Bank Information and Transfer System
RTGS	Real Time Gross Settlement
<b>Software Providers</b>	Vendors and those developing in-house systems
SRN	Security Reference Number
SSF	Securities Settlement Facility
SSP	Standard Settlement Price
SWIFT	Society for Worldwide Interbank Financial Telecommunication
T	Trade Date
TCS	TATA Consultancy Services
TFN	Tax File Number
TLS	Transport Layer Security
UI	User Interface
UTI	Unique Transaction Identifier
VPN	Virtual Private Network

# APPENDIX B – Consolidated List of Scope Activities

Reference	Scope Objective	Source	Status
1.1	Standardise, improve and better synchronise the data sharing between Participants and Share Registries	Business Committee endorsed	Proposed in scope section 3.6.1
1.2	Foreign restricted securities - review and simplify the current processes for holdings and transfers	Scope objective requiring further consideration by ASX	Proposed in scope section 3.6.2
1.3	Implement a faster and more efficient SRN enquiry process	Business Committee endorsed	Proposed in scope section 3.6.5
1.4	Reduce settlement risk in relation to Issuer sponsored sales	Business Committee endorsed	Proposed in scope section 3.6.4
1.5	Reduce operational risk in relation to the current ETF creation/redemption workflow	Business Committee endorsed	Proposed in scope section 3.5.7
1.6	Provide more efficient, reliable and faster access to holding information	Business Committee endorsed	Proposed in scope section 3.6.7
1.7	Provide the ability for Share Registries to validate account details to facilitate CHESS allotment of investor accepted offers	Additional scope objective received via technical committee	Proposed in scope section 3.6.1
2.1	Reduce operational risk by ensuring Participants are able to submit and match transactions in the system as soon as practical while minimising the likelihood of incurring a failed settlement (e.g. being able to separately match and schedule a transaction)	Business Committee endorsed	Proposed in scope section 3.5.2
2.2	Reduce operational risk by minimising mismatches and failed matches by increasing the data sharing and matching fields available and/or making use of information available in upstream systems	Business Committee endorsed	Proposed in scope section 3.5.2
2.3	Reduce operational overhead in relation to Payment Provider authorisations by allowing for automated approvals in the system within cash limits	Scope objective requiring further consideration by Payment Providers	Proposed in scope section 3.5.4
2.4	Provide more certainty by enabling more frequent and/or configurable access to preliminary payment data	Scope objective requiring further consideration by Payment Providers	Proposed in scope section 3.5.4
2.5	Bilateral Matching – use of transaction basis (on and off-market)	Scope objective requiring further consideration by ASX	Progressed outside of CHESS replacement section 3.11.4
2.6	Scheduled Settlement CHESS to CHESS Transfer Request (MT107) - support usage within a participant group structure	Business Committee endorsed	Proposed in scope section 3.5.1



Reference	Scope Objective	Source	Status
2.7	Deferred settlement securities – review process to ensure/improve settlement efficiencies	Scope objective requiring further consideration by ASX	Progressed outside of CHES replacement section 3.11.4
3.1	Review and enhance the current processes for automated claims (diary adjustments) to ensure it continues to meet the market needs	Business Committee endorsed	Proposed in scope section 3.5.6
3.2	Provide standardised straight through processing capability for corporate action elections and cost-effective associated payments	Business Committee endorsed	Proposed in scope section 3.7.2
3.3	Reduce operational risk in relation to DRP standing instructions	Business Committee endorsed	Proposed in scope section 3.7.2
3.4	Evaluate opportunities to facilitate the transfer of entitlements (pre and/or post Record Date) ensuring this does not impact Issuer schedules	Scope objective requiring further consideration by ASX	Future release schedule
3.5	Provide standardised electronic transmission of corporate action distribution information to create opportunities for automation and process improvement	Business Committee endorsed	Proposed in scope section 3.7.3
3.6	Evaluate whether ASX can help with the transmission of bank account information in relation to bid offers	Additional scope objective received via technical committee	Proposed in scope section 3.7.1
3.7	Ensure holding adjustment reason codes are up to date and being used correctly	Business Committee endorsed	Progressed outside of CHES replacement section 3.11.4
3.8	Make Subregister state more readily available to Participants to help improve processes in relation to de-listings	Business Committee endorsed	Proposed in scope section 3.6.5
3.9	Standardised electronic proxy voting	Scope objective requiring further consideration by ASX	Future release schedule
3.10	Provide an electronic Bid Offeror finalisation process in relation to takeovers and buybacks	ASX driven operational improvement	Proposed in scope section 3.7.1
4.1	Review the design for netting in the context of the solution	Solution specific	Proposed in scope section 3.4.1
4.2	Review the design for settlement in the context of the solution	Solution specific	Proposed in scope section 3.5.3
4.3	Settlement linking – review and evaluate solution design	Solution specific	Proposed in scope section 3.5.1

Reference	Scope Objective	Source	Status
4.4	Settlement locking – review and evaluate solution design	Solution specific	Proposed in scope section 3.5.1
4.5	Bilateral non-batch DvP settlement – review and evaluate in the context of payment processes	Solution specific	Proposed in scope section 3.5.4
5.1	T+1 consultation and potential impacts to the CHES replacement project	Industry driven	Proposed in T+1 section in 5.2
5.2	House/client segregation consultation and potential impacts to the CHES replacement project	Regulatory commitment	Proposed in scope section 3.4.3
5.3	Ensure the solution is designed to enable potential future interoperability between CCPs, SSFs and/or subregisters	Regulatory commitment	Proposed in section 6
5.4	Review use cases for Cum Entitlement Balances and assess its continued effectiveness for the Australian market	Solution simplification	Proposed in scope section 3.5.5

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