

Implementation & Transition Working Group

2 October 2024





ASX acknowledges the Traditional Owners of Country throughout Australia. We pay our respects to Elders past and present.

Artwork by Lee Ann Hall, My country My People



Housekeeping

Troubleshooting

- > Please mute yourself when not speaking
- > Please use the 'raise hand' feature on MS Teams if you would like to ask a question
- > Please introduce yourself when talking for the benefit of all members
- Dial in details (audio only):
 - +61 2 7208 4607
 - Phone Conference ID: 458 640 66#
- > Presentation materials were distributed before the meeting and will be published on the website



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Competition Law Reminder

Workshop members are reminded to have regard to their obligations under competition law. In particular, please note that the Competition and Consumer Act prohibits a corporation from engaging with one or more persons in a concerted practice that has the purpose, effect or likely effect of substantially lessening competition.



	01 Welcome, Open Actions & Feedback
	02 Release 1 – Deferred Settlement
\anda	03 Release 1 – Readiness Progress Update
Agenda	04 Release 2 – Industry Test Approach Engagement
	05 Release 2 – Consultation Paper Update
	6 Forward Engagement and AOB

O1Welcome, Open Actions & Feedback

For discussion



01 – Open Actions

October 2024

#	Topic	Action	Raised	Due	Owner	Status
1	R2 Risk Mitigation	ASX to present the assessment of additional options, seeking industry input on viability and risk assessment. Discussion required on day 1 non settlement day, and incremental release of market settlements.	11 July TC	2 October I&TWG	ASX	Propose to Close
2	R2 Risk Mitigation	Working Group members to provide any additional feedback or suggestions on industry testing or otherwise to further de-risk Release 2 to CHESSReplacement@asx.com.au	5 June I&TWG	-	I&T Member Organisations	Propose to Close
3	R2 Timeline	Working Group members to provide feedback on latest R2 timeline	4 July I&TWG	-	I&T Member Organisations	Propose to Close
4	R2 Risk Mitigation	ASX to revert with cohort-level risk assessment of staging options & engage with cohorts as required to validate risk assessment	6 August I&TWG	2 October I&TWG	ASX	Propose to Close, Refer to Slide 27.
5	R2 Operating Rule Changes	ASX to revert with timeline and approach to rule change consultation	6 August I&TWG	2 October I&TWG	ASX	In Progress



02

Release 1 – Deferred Settlement



02 – Deferred Settlement

Recap

- > In the I&T WG meeting in August 2024, options for handling Deferred Settlement trading (should it occur over the R1 go-live period) were presented
- > Deferred settlement trades are currently held gross and netted on S-1 when they reach settlement date
- > If the deferred settlement trading period of a security spans the Release 1 go-live date, an approach is needed to determine how to deal with the trades matched prior to and post go-live
- > Two general options were presented:
 - Option 1: Manage deferred settlement trades in the system where they were captured (i.e. current CHESS vs CHESS replacement) with two resulting sets of settlement instructions (either net or gross)
 - Option 2: Migrate trades captured in the current CHESS system to the CHESS replacement system to allow them to net all deferred settlement trades on S-1
- > A sub-option of Option 1 (separate settlements) was proposed as the best candidate, whereby trades would be settled gross or net based upon whether these were reported to CHESS or CHESS replacement respectively see next slide.



02 – Deferred Settlement – Option 1 (split approach)

Sub-options of Option 1



Option 1 – Separate Settlements

Sub-option 1 – Net/Net

Overview: Net trades separately in current CHESS & CHESS replacement resulting in two NBOs for the settlement date

Pros

- + Least number of settlement lines
- + Eliminate need for trade migration lower overall effort and risk for ASX and the industry

Cons

- Results in 2 x:
 - NBOs per CP/Security
 - Batches of EIS134/138 messages per CP/Security

Sub-option 2 – Gross/Net

Overview: Settle trades gross in current CHESS, net those registered in CHESS replacement resulting in an NBO and gross settlements for the same settlement date

Pros

- + Fewer settlement lines
- + Only 1 x NBO & EIS 134 per CP (likely to be less impactful)

Cons

Still has potential to create high-volume of gross settlements

Sub-option 3 – Gross/Gross

Overview: Disable all netting and settle all deferred transactions on a gross basis

Pros

+ May be less impactful to participants

Cons

Results in highest number of settlement instructions

Proposal

ASX proposes to go with Sub-option 2



02 – Deferred Settlement

- > To date no significant operational or technical issues have been identified with this approach for either CHESS, CHESS replacement or any of the vendor systems
- > Based upon feedback and follow-up discussions, and subject to any additional issues being identified, Sub-option 2 has been determined as the optimal approach
- > To understand whether there are any operational or technical issues, a set of test cases will be developed to verify the Deferred Settlement end-to-end processing, including Participant systems.



03 Release 1 – Readiness Engagement Update

For discussion



03 - Forward Agenda for Release 1 Industry Testing I&TWG Topics



Scope

AMO Working Group will discuss in detail the requirements for each phase. I&T WG playbacks will provide an overview on proposed approaches, including:

- > Activity & Progress Tracking
- > AMO Accreditation
- > Operational Readiness
- > Cutover & Migration.

I&T WG deep dive sessions proposed for:

- Clearing Regression
- > Cutover Runbook

Structure

I&TWG Overviews:

- Agenda item approach and overview presented by ASX
- > Interactive industry Q&A.

Deep Dives:

- Agenda item proposed approach and overview presented by ASX
- > Industry discussion & workshop to identify Risks, Issues, Dependencies, Assumptions & Gaps
- > Finalised approach documented, presented to I&TWG, and published in the relevant guide.

Targeted Schedule

I&TWG Overviews:

> Forward agenda proposed and details provided by ASX in relevant I&TWG agenda approximately 1 week prior to meeting.

Deep Dives:

- Forward agenda proposed and details provided by ASX approximately 1-3 weeks before scheduled deep dive
- > Industry feedback to details provided to be sent to ASX in advance of deep dive (enabling the deep dive to focus on areas requiring further consideration)
- > Clearing Regression proposed Q2 2025
- > Cutover Runbook- proposed Q3 2025



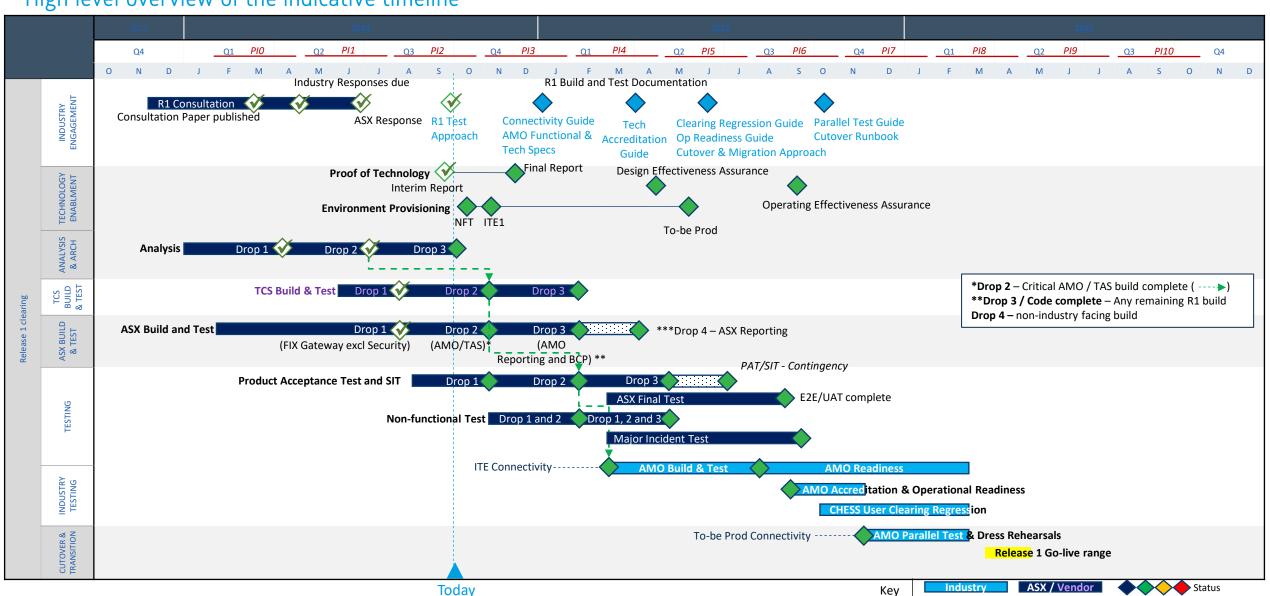
03 – Release 1 Industry Readiness Activities – Forward Plan

Upcoming and completed Release 1 readiness activities

Activity	Subject	Purpose	Planned Date	Status
Publish Documentation	Release 1 Industry Test Approach	Describe the detailed industry test approach and expected activities of each involved party, as well as timing, entry and exit criteria and expected test outcomes of all Release 1 industry test phases	Q3 2024	Published 6 Sept 2024
Publish Documentation	Release 1 FIX Specifications	Provide a detailed specification of all FIX messages, including message structures, rules, and message flow diagrams. Market-relevant specifications will be published in iterations as ASX analyses and completes designs for each drop	Q3-Q4 2024	
Publish Documentation	Release 1 Connectivity Guide	Detail the technical connectivity requirements to connect to the CHESS replacement system, including connectivity method(s), network details and security details	Q4 2024	
Engagement Activity	Release 1 Activity and Progress Tracking Overview	Interactive session to provide an overview and discuss ASX proposed test phase activity and progress tracking approach	Q1 2025	
Engagement Activity	Release 1 AMO Accreditation Overview	Interactive session to provide an overview and discuss the prerequisites and process for performing AMO Accreditation	Q1 2025	
Publish Documentation	Release 1 AMO Accreditation Guide	Provide detail on the CHESS replacement AMO Accreditation phase, expectations regarding conduct and expected results including the Accreditation process, connectivity, and message scenarios	Q1 2025	
Engagement Activity	Release 1 Clearing Regression Deep Dive	Deep dive workshop to provide an overview and discuss the prerequisites and process for performing Clearing Regression activities, identify and understand industry requirements on topics requiring further consideration, and finalise approach to Clearing Regression	Q2 2025	
Publish Documentation	Release 1 Clearing Regression Test Guide	Detail the minimum ASX-specified Clearing Regression test scenarios, key activities and expectations regarding conduct and expected results including entry and exit criteria	Q2 2025	
Engagement Activity	Release 1 Operational Readiness Overview	Interactive session to provide an overview and discuss the prerequisites and process for confirming Operational Readiness	Q2 2025	
Publish Documentation	Release 1 Guide to Operational Readiness Phase	Detail the Operational Readiness scenarios including mandatory success criteria	Q2 2025	
Engagement Activity	Release 1 Cutover & Migration Approach Overview	Interactive session to provide an overview and discuss the approach to Cutover & Migration	Q2 2025	
Publish Documentation	Release 1 Cutover and Migration Approach	Detail the minimum ASX-specified Clearing Regression test scenarios, key activities and expectations regarding conduct and expected results including entry and exit criteria	Q2 2025	
Engagement Activity	AMO Parallel Test Overview	Interactive session to provide an overview and discuss the approach to Parallel Test	Q2 2025	
Publish Documentation	Release 1 Guide to AMO Parallel Test	Provide detail on the Parallel Test phase, key activities and expectations and expected results including entry and exit criteria	Q3 2025	
Engagement Activity	R1 Cutover Deep Dive	Deep dive workshop to provide an overview and discuss the prerequisites and process for performing Cutover activities, identify and understand industry requirements on topics requiring further consideration, and finalise approach to structuring Cutover Runbook	Q3 2025	
Publish Documentation	R1 Cutover Runbook	Provide AMOs 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. Note that the cutover runbook will also include the steps required to rollback	Q3 2025	

03 – Updated Release 1 Indicative Project Timeline – October 2024

High level overview of the indicative timeline



04

Release 2 – Industry Test Approach Engagement

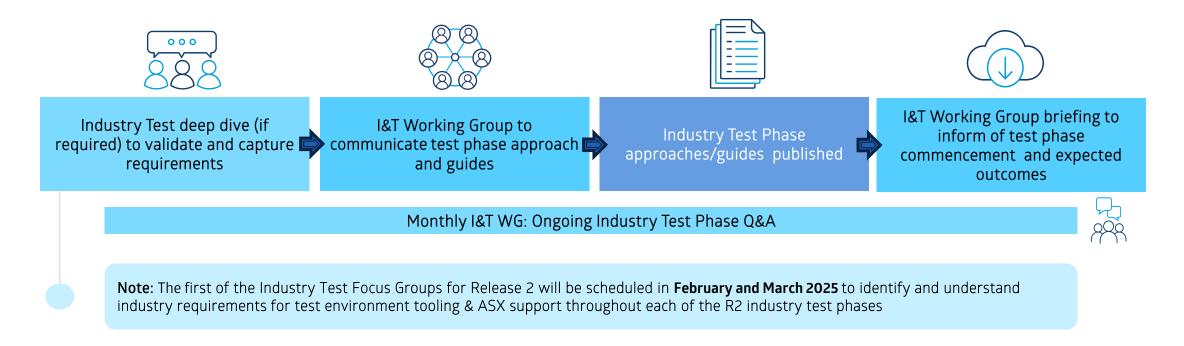
For discussion



04 - Forward Agenda for Release 2 Industry Testing I&T Working Group Topics

Proposed R2 Industry Test engagement activities will be communicated following the CP2 response.

Various R2 deep dives are anticipated to be scheduled on topics including industry testing requirements, parallel testing and Go-Live rollback to identify and understand industry requirements. I&T Working Groups will include discussion sessions on approach, phase commencement and expected outcomes for each phase.





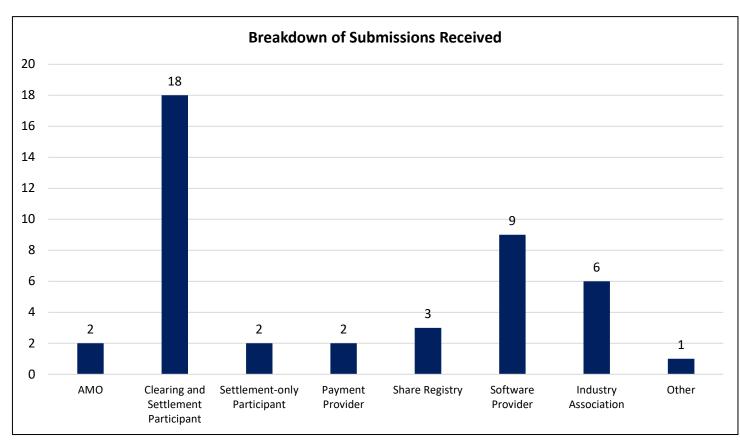
O5Release 2 – Consultation Paper Update

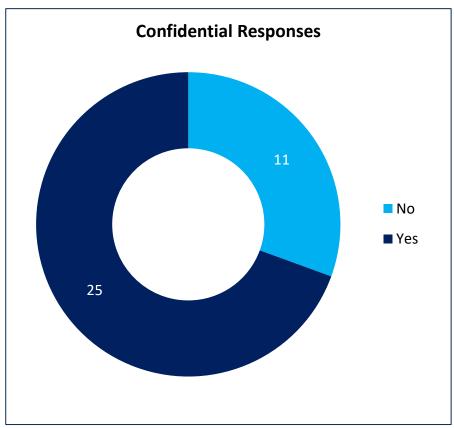
For discussion



05 - Consultation Paper Update

ASX has received 36 responses to the CP2 with 1 extension pending



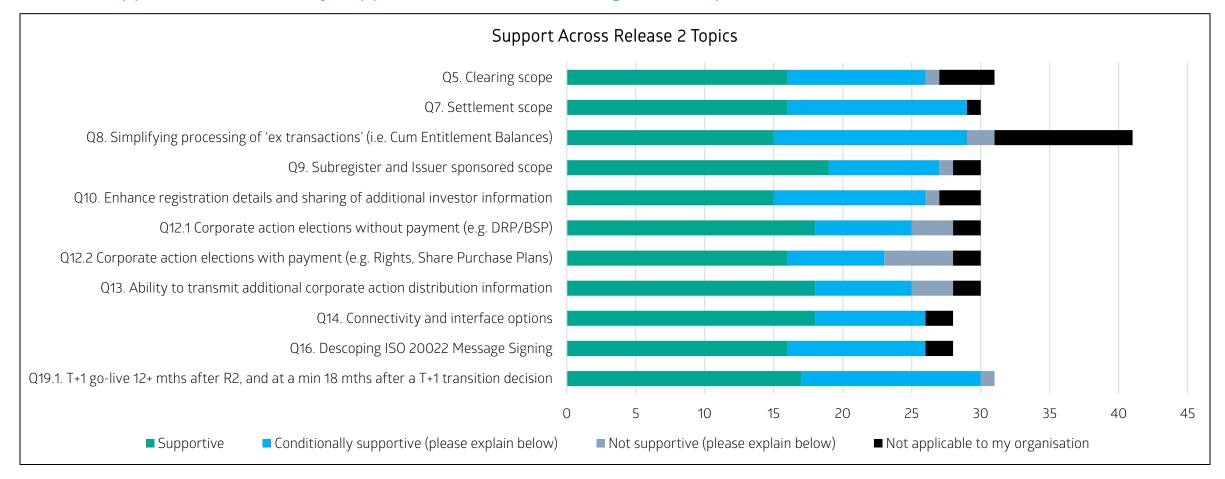


Note: Numbers represented in the breakdown of submission received (graph) will differ from total number of submissions as some organisations may represent more than one cohort.



05 - Consultation Paper Update

General support or conditionally supportive of Release 2 design and scope



Note: Numbers represented differ from total number of submissions as some organisations represent more than one cohort.



05 – Consultation Paper Update

Indicative Insights

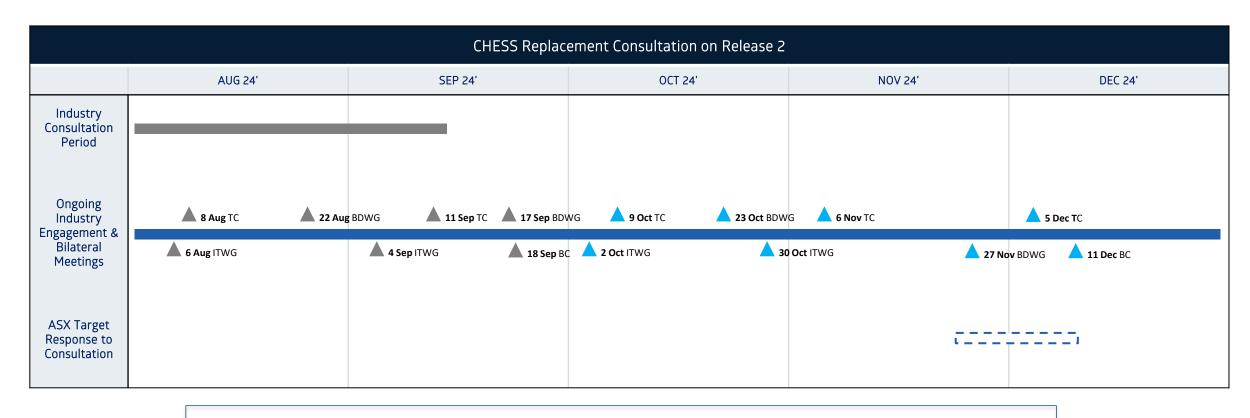
General Support	Alterations to Accommodate Breadth of Industry Views	Amendments to Accommodate Industry Feedback
 T+1 Settlement - Majority support for sequencing a transition to T+1 after CHESS replacement Interoperability - Majority support for approach and noted that this only becomes a topical issue once / when there is a competitor in the market Single Release - Majority supported the current approach. There are a number of bi-laterals scheduled with organisations to discuss the approach in more detail Settlement Scope - Majority support for activities proposed for ownership transfer of securities and the corresponding payments ISO 20022 Message Signing - Industry consensus not to proceed with this, given the additional controls in place 	 Day 1 Functionality – Core vs enhancements. Some respondents suggested that focusing on core functionality would de-risk go live, while others wanted to see new functionality delivered as part of day 1 Introduction of APIs – General support for the availability of APIs, while we work through exactly which APIs will be built and released Go-Live Months to Avoid – Respondents provided a comprehensive list of dates to avoid which included a vast range from financial year end, holiday periods and corporate half and full year result periods (including associated corporate action periods) 	 Industry Testing – Respondents noted that additional time may be required for development and integration of internal and vendor supplied systems. We're working through potential solutions to enable and support user requirements Corporate Actions – Enhanced functionality requires additional industry engagement.



05 – Consultation Approach

Key Points

- > ASX plans to formally respond to the feedback received in Q4 2024
- > ASX is continuing its engagement through the existing working groups and forums to work with the industry on topics requiring further industry engagement.



BC – ASX Business Committee

BDWG – Business Desing Working Group



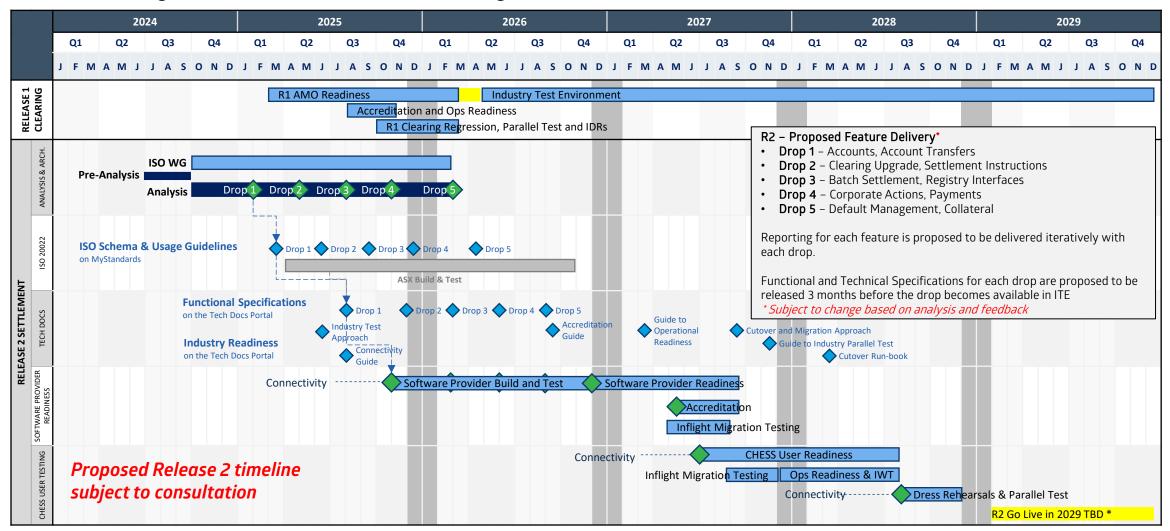
TC - CHESS Replacement Technical Committee

22 | Implementation and Transition Working Group | 2 October 2024 | Public

ITWG - Implementation & Transition Working Group

Proposed R2 timeline subject to industry consultation & assessment.

ASX is considering a number of scenarios for the timing of Release 2 in 2028 and 2029. One 2029 scenario is set out below:



06 Forward Engagement & AOB

For discussion



06 – Upcoming Engagement

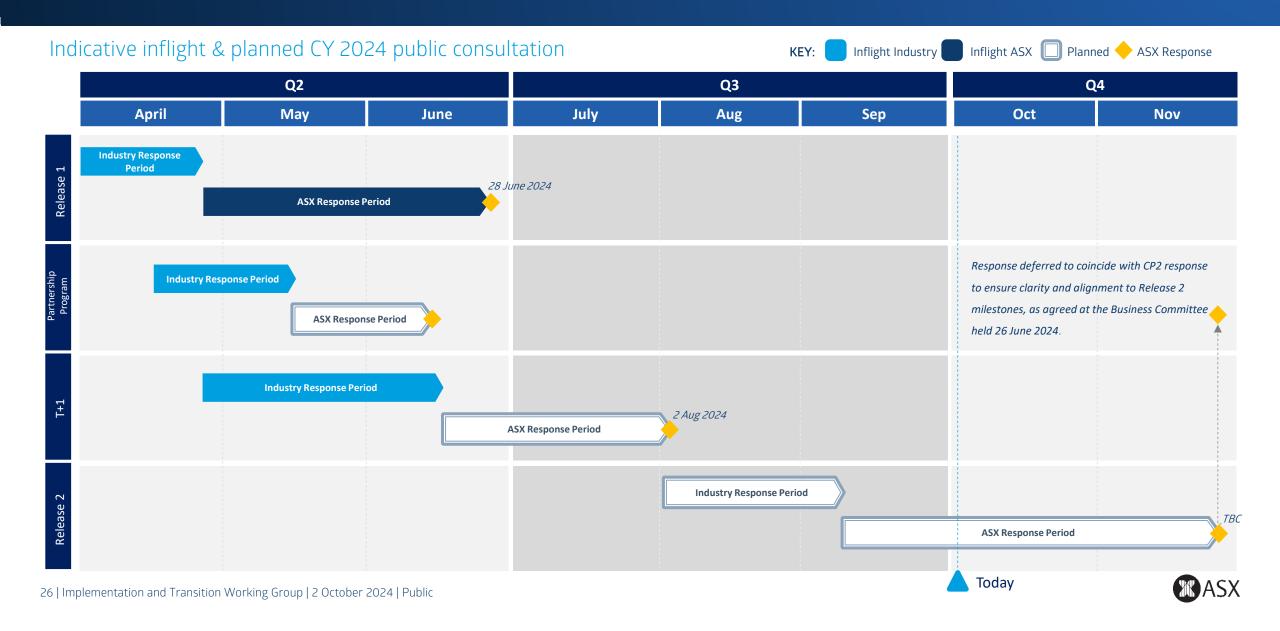
What's on the Implementation & Transition WG horizon?



Note: Meeting timelines are indicative and subject to change.



06 - Public Consultation Update



Appendix A – Cohort Assessment for Staging Release 2



Staged Implementation Staging by Participant

Options	Enablers	Current CHESS	CHESS Replacement	Benefits (Operational Risk Reduction)	ASX	RBA / Banks	Clearing & Settlement Participant	Settlement Only Participant	Issuer Registry
Enhanced	 Stateful universal centralised message translation requiring complex rules Supplementary temporary interfaces 	EIS messaging	All data and business logic	 Incident vectors constrained to one or a small number of Participants at a time Single release 	• Not technically viable	• N/A – since not technically viable at ASX	N/A – since not technically viable at ASX	N/A – since not technically viable at ASX	N/A – since not technically viable at ASX
Like-for- like	 Centralised universal message translation 3 phase approach (Phase 0, 1, 2) Restricted to "like- for-like" for Phase 1 	• EIS messaging	• All data and business logic	Incident vectors constrained to one or a small number of Participants at a time	 Significantly increases market impact and delivery risk, without addressing original concern of single- cutover avoidance Requires like-for-like message translation capability for all EIS messages 	• >12 months delay for ISO 20022 RITS uplift (assumes migrated by Phase 1)	 Multi-year delay for enhancement release Phase 0 requires current CHESS release Single cutover events for Phase 0 and Phase 2 Potential to rollback to EIS if Phase 1 cutover to 	 Multi-year delay for enhancement release Phase 0 requires current CHESS release Single cutover events for Phase 0 and Phase 2 Potential to rollback to EIS if Phase 1 cutover 	EIS if Phase 1 cutover
							ISO 20022 fails	to ISO 20022 fails	to ISO 20022 fails

Note: All options will have an impact to project timelines with specifics to be determined post analysis of each option



Summary of risk relative to Release 2 as one release



Staged Implementation Staging by Issuer

Options	Enablers	Current CHESS	CHESS Replacement	Benefits (Operational Risk Reduction)	ASX	RBA / Banks	Clearing & Settlement Participant	Settlement Only Participant	Issuer Registry
Staging by Issuer	 CHESS users connect to two systems 2nd settlement batch Data synchronisation (Accounts) 	 EIS messaging All holdings, obligations and logic for Issuers that have not migrated Account maintenance and data (master) 	ISO 20022 messaging All holdings, obligations and business logic for Issuers that have been migrated Account data (replicated)	occurring in new	 Arguable reduction in operational risk offset by need to operate two systems for settlement, increased market risks and delivery risk Operation of two settlement batches (possible rule framework change) Some build required (merging data for reporting/risk management, account replication from CHESS to CHESS Replacement) 	Potential build required Technical and/or operational process changes to support second batch	 Some build required (connectivity to both current CHESS [EIS] and CHESS Replacement [ISO 20022]) Technical and operational process changes to support second batch Potential batch (cash) netting inefficiency loss depending on how issuers are rolled out 	 Some build required (connectivity to both current CHESS [EIS] and CHESS Replacement [ISO 20022]) Technical and operational process changes to support second batch Potential batch(cash) netting inefficiency loss depending on how issuers are rolled out 	Potential build required (depending on registry) Technical and/or operational process changes to support both CHESS and CHESS Replacement

Summary of risk relative to Release 2 as one release

Key Neutral De-risk Med increase High increase in risk

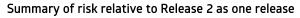


Note: All options will have an impact to project timelines with specifics to be determined post analysis of each option

Staged Implementation Staging by Function

Options	Enablers	Current CHESS	CHESS Replacement	Benefits (Operational Risk Reduction)	ASX	RBA / Banks	Clearing & Settlement Participant	Settlement Only Participant	Issuer Registry
Clearing – with EIS backwards	Interoperability between CHESS replacement	EIS messagingSubregister (accounts/holdin	AMO Interface (FIX)Trade	• Solves trade scalability in shortest	 ASX operating two systems in Production 	• No impact	Shielded from impact by backwards compatibility messaging (will require testing)	Shielded from impact by backwards compatibility messaging (will require testing)	• No impact
compatibili ty Release 1 baseline	current CHESS • Set (settlement) • EIS backwards compatibility for ma	es) • Settlement (matching/obligations management/batch)	cancellation	timeframe Isolates majority of ASX and AMO build from market build	Solves trade scalability in shortest timeframe		Solves trade scalability in shortest timeframe		
Clearing - with	ISO 20022MessagingTCS BaNCS UI	ve • As above + optional ISO	 Ability to validate trade 	release and test phases)	• >12 months	• >12 months delay (additional release and test phases)	>12 months delay (additional release and test phases)	 >12 months delay (additional release 	
optional 20022 and/or CHESS UI			20022 version of clearing messages and CHESS UI	notifications in Productions before R2	• Supporting both EIS and ISO 20022	delay for ISO 20022 RITS uplift	Optional participationParallel run EIS & ISO 2002		and test phases)
Settlement - Bilateral	(optionally) interface	0 1	• ISO20022 bilateral	• Incident vectors constrained to	>12 months delay (additional release and test phases)	• >12 months	• >12 months delay (additional release and test phases)	• >12 months delay (additional release and test phases)	• >12 months delay (additional release
with message translation	to EIS and ISO20022 Data synchronisation (Accounts) Centralised message translation for bilateral messages only	bilateral matching	matching (101, 135, 102, 194, 166, 116) • Allegements • Data synchronisation (Accounts)	one or a small number of Participants at a time, but only for this specific function	 Requires like-for-like message translation & routing capability for subset of EIS messages Non-retail account data replication Supporting both EIS and ISO 20022 	delay for ISO 20022 RITS uplift	Restricted to "like-for-like"Requires subsequent release for enhanced process	Restricted to "like-for-like"Requires subsequent release for enhanced process	and test phases)
							Optional CHESS user build to support EIS and ISO20022 concurrently	Optional CHESS user build to support EIS and ISO20022 concurrently	

Neutral De-risk Med increase in risk





Staged Implementation Staging by Function

Options	Enablers	Current CHESS	CHESS Replacement	Benefits (Operational Risk Reduction)	ASX	RBA / Banks	Clearing & Settlement Participant	Settlement Only Participant	Issuer Registry
r – Account	CHESS users must interface to EIS and ISO 20022 Data Synchronisation (Accounts)	All data and logic, except bilateral matching	• ISO 20022 Account maintenance • Accounts (master)	• Isolates migration to new account model from other functionality	 Requires synchronous retail account replication (complexity) >12 months delay (additional release and test phases) Supporting both EIS and ISO 20022 	• >12 months delay for ISO 20022 RITS uplift	 >12 months delay (additional release and test phases) Mandated CHESS user build to support EIS and ISO 20022 concurrently 	 >12 months delay (additional release and test phases) Mandated CHESS user build to support EIS and ISO 20022 concurrently 	 >12 months delay (additional release and test phases) Mandated CHESS user build to support EIS and ISO 20022 concurrently
Subregiste r - holdings	CHESS users must interface to EIS and ISO 20022 Settlement to Subregister interoperability	All data ad logic, except accounts and holdings	 ISO20022 Account maintenance, holdings/ subposition maintenance demand transfers Accounts & Holdings 	• Isolates migration of holding related functionality from other functionality	 Requires substantial changes to current CHESS to support settlement <-> sub-register interoperability Introduces complexity and risk into batch settlement process >24 months delay (additional release and test phases) Supporting both EIS and ISO 20022 	 >24 months delay for ISO 20022 RITS uplift Complexity in batch settlement process 	 >12 months delay (additional release and test phases) Mandated CHESS user build to support EIS and ISO20022 concurrently 	 >12 months delay (additional release and test phases) Mandated CHESS user build to support EIS and ISO20022 concurrently 	 >12 months delay (additional release and test phases) Mandated CHESS user build to support EIS and ISO20022 concurrently
Pass- through transactio ns	CHESS users must (optionally) interface to EIS and ISO 20022 Data synchronisation (Accounts/Holdings)	All data and logic, except validation of pass-through messages	 ISO 20022 SRN enquiry and investor details Accounts and holding (replicated) 	• Incident vectors constrained to one or a small number of Participants at a time, but only for these specific functions	 Requires synchronous retail account replication (complexity) 12 months delay (additional release and test phases) Requires like-for-like message translation & routing capability for subset of EIS messages Supporting both EIS and ISO 20022 interfaces 	• >12 months delay for ISO 20022 RITS uplift	 >12 months delay (additional release and test phases) Optional CHESS user build to support EIS and ISO20022 concurrently 	 >12 months delay (additional release and test phases) Optional CHESS user build to support EIS and ISO20022 concurrently 	 >12 months delay (additional release and test phases) Optional CHESS user build to support EIS and ISO20022 concurrently
							Key Neutral	De-risk Med increase in risk	High increase in risk

Summary of risk relative to Release 2 as one release



Appendix B – Closed Actions



Closed Actions

Previously closed actions

#	Topic	Action	Raised	Due	Owner	Status
1	Industry Test Approach	ASX to provide an update on when the industry test approach will become available	11 July TC	6 August I&TWG	ASX	CLOSED
2	Deferred Settlement	ASX to provide further detail on deferred settlement for further consideration	5 June I&TWG	4 July I&TWG	ASX	CLOSED
3	Deferred Settlement	Working Group members to review pre-read content from 4 July I&TWG and provide feedback to CHESSReplacement@asx.com.au	4 July I&TWG	6 August I&TWG	I&T Member Organisations	CLOSED
4	Staged Implementation	ASX to include additional industry benefit analysis to capture industry perspectives on staging options	4 July I&TWG	6 August I&T WG	ASX	CLOSED
5	R2 Timeline	ASX to update Release 2 timeline to incorporate any T+1 assumptions and analysis requirements	5 June I&TWG	4 July I&TWG	ASX	CLOSED
6	Reporting	ASX to revert with timeline for reporting drops	6 August I&TWG	4 September I&TWG	ASX	CLOSED



Questions



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