

# ASX CHESS Replacement

Business Design Working Group

29 May 2024





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

**ARTWORK BY:** Lee Anne 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
- > Meeting is being recorded for the purposes of capturing decision and actions
- > Dial in details (audio only):
  - +61 2 7208 4607
  - Phone Conference ID: 315 305 579#
- > Presentation materials were distributed before the meeting and will be published on the website

# Important Information

## 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.

# Agenda

01 – Introduction and Agenda

02 – Settlement Obligations

03 – Batch Settlement & Related Payments

04 – Non-Batch DvP

05 – Next Steps



# 01 – Introduction and Workshop Agenda

# 01 – Introduction

## Detailed Workshop Agenda

Topic	Duration
<b>Introduction</b> <ul style="list-style-type: none"><li>Workshop objectives and outputs</li></ul>	15 mins
<b>Market Trade Obligations</b> <ul style="list-style-type: none"><li>Scheduling for Settlement</li><li>Position and Settlement Mapping</li></ul>	30 mins
<b>Holding Transfers and Settlement Instructions</b> <ul style="list-style-type: none"><li>Overview</li><li>Bilateral Matching Improvements</li><li>Other Features (Linking and Locking)</li></ul>	45 mins
<b>Break</b>	15 mins
<b>Batch Settlement Process &amp; Related Payments</b> <ul style="list-style-type: none"><li>Overview</li><li>Settlement Obligation Modelling</li><li>Settlement Confirmations</li><li>Automation of Payment Provider Approvals</li></ul>	35 mins
<b>Non-Batch DvP</b>	30 mins
<b>Next Steps</b>	10 mins
<b>Total workshop duration</b>	<b>3 hours</b>

# 01 – Workshop objectives

## Key Objectives and Outputs

The purpose of the BDWG is to achieve broad consensus on additional scope for CHES Replacement and to develop the Business Design Document for each objective.

### Objectives

- Collect advice and expertise to understand industry needs in relation to their settlement processes.
- Define the scope for settlement service in the context of Release 2.
- Communicate features available in TCS BaNCS MI that could enhance participant settlement processes.
- Establish industry design considerations for new scope items such as features that improve bilateral matching and introduction of non-batch DVP.
- Agree on proposed solutions for the CHES settlement service.

### Outputs

- Business Design Document that includes:
  - Functional outcomes
  - Process Flow (high level)
  - Access channels (e.g. User Interface, ISO20022 messaging)
  - Any non-functional considerations
  - Any other considerations



What outcomes would you like to achieve for your organisation from this workshop?

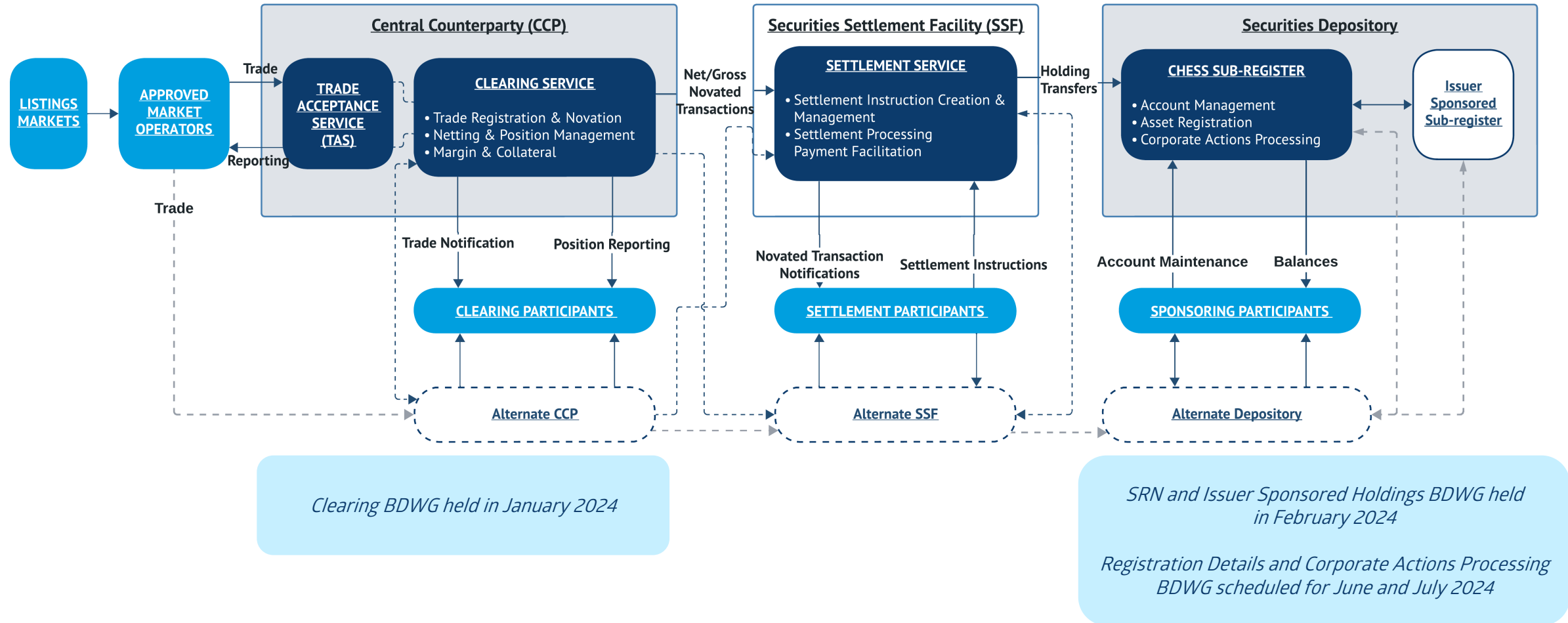


## 02 – Settlement Obligations

- Market Settlement Obligations
- Holding Transfers and Settlement Instructions

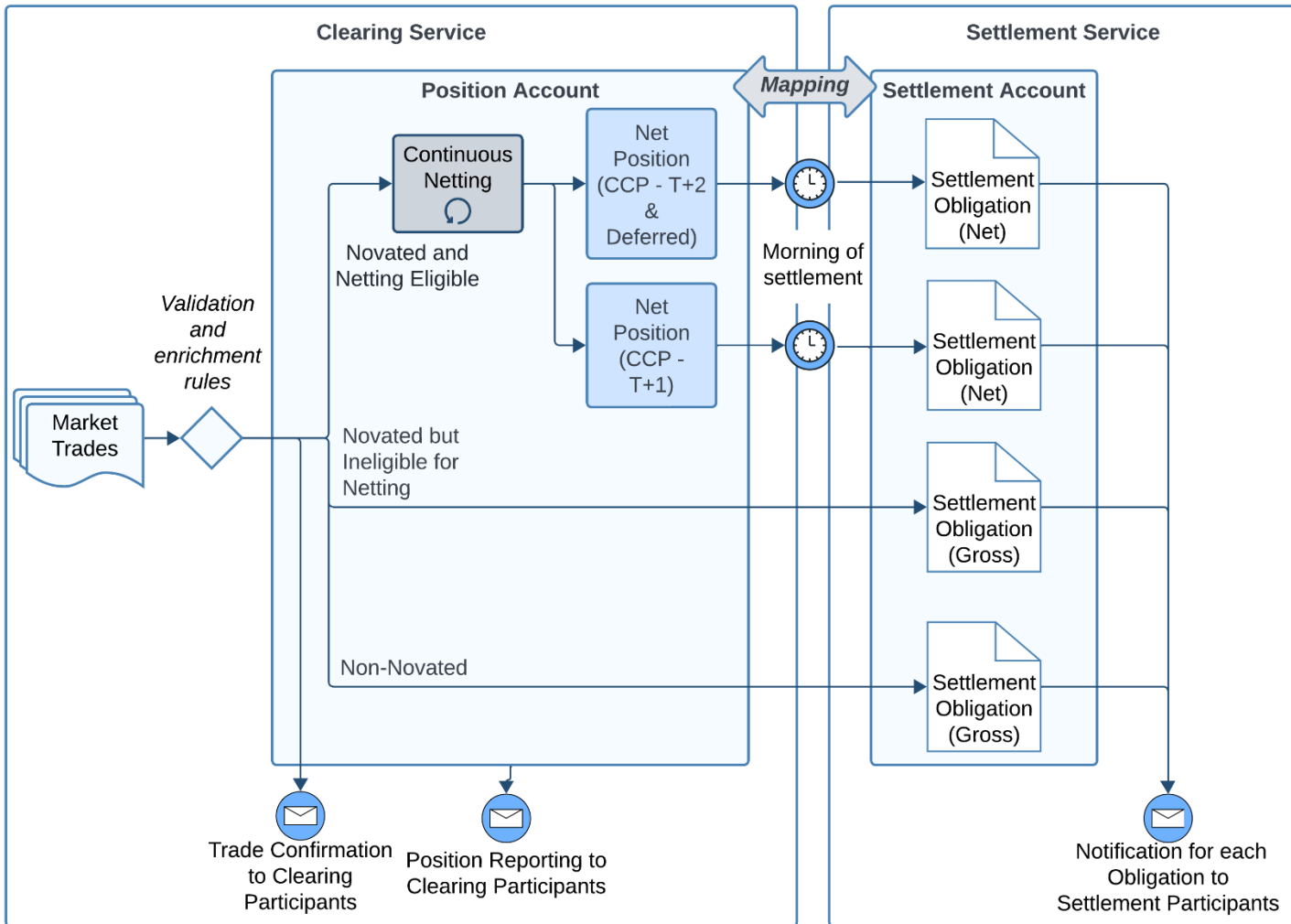
# 02 – Interoperability

## Proposed Modular Design



# 02 – Market Settlement Obligations

## Proposed Scheduling for Settlement



- Market trades are registered, novated (if eligible) and allocated to a Position Account in the Clearing Service.
- Trades eligible for netting are continuously netted into a net position.
- Trades ineligible for netting remain as non-netted trades and are immediately notified for settlement.
- Net positions are notified as net settlement obligations to the settlement service via a separate process on the morning of settlement date.
- Settlement Accounts will facilitate the transfer of securities for each settlement obligation notified (i.e. the Settlement entrepot).
- The Settlement Account for an obligation is determined by a Position to Settlement Account mapping maintained in the system (depicted here as a one-to-one mapping).
- Settlement Participants are notified of each settlement obligation generated.

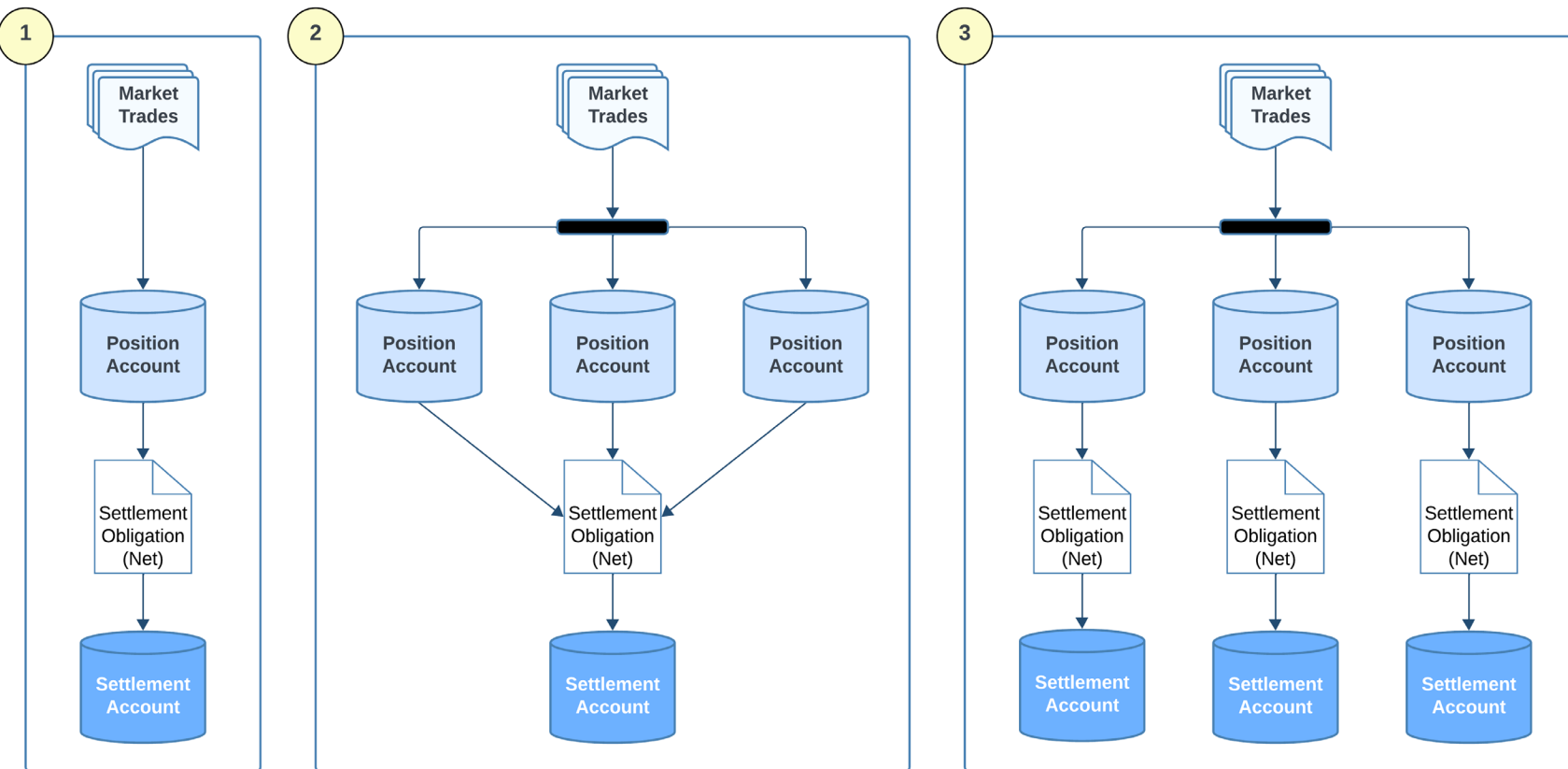


Market trades in securities that are settled on a deferred basis would not be subject to netting until the 'First Settlement Date' is known. They will be maintained as gross in the system, until they become eligible for netting.



# 02 – Market Settlement Obligations

## Net Settlement Obligations and Position & Settlement Accounts



- 1) This is the base case where participants operate a single position account and single settlement account. A single net settlement obligation is generated per net position in the position account.
- 2) Where clearing participants operate more than one position account which map to a single settlement account, then the net settlement obligation generated will be a net of the net positions across all those position accounts.
- 3) Where separate net settlement obligations are required per position account, participants will need to operate separate settlement accounts per position account.



Multiple position accounts can be used for segregation, i.e. between house and client positions, or for separating trading participants in a third-party clearing arrangement



The system also supports mapping position accounts to settlement accounts in a one-to-one AND / OR one-to-many configuration i.e. a combination of diagrams #2 AND #3 above.

# 02 – Holding Transfers & Settlement Instructions

## Overview

### Holding Transfers and Settlement Instructions supported in TCS BaNCS MI

#### Account (Holding) Transfers

- Unilateral free of payment transfer of securities between accounts (HINs).

- On demand; or
- Scheduled for the start of a future business date

New!

#### Settlement Instructions

- Unilateral free of payment scheduled settlement.
- Bilateral free of payment, delivery versus payment, or payment free of delivery scheduled settlement.

- Batch Settlement; or
- On demand/Non-Batch DvP

#### Portfolio Transfers

- Unilateral or bilateral free of payment transfer of all holdings on an account (HIN) to another account (HIN).

- Scheduled for processing overnight

New!

# 02 – Previous Survey Playback

## Recap – Bilateral Matching Improvements & Settlement Enhancements

### Scope Objective

#### 2.1 Bilateral Matching Improvements -

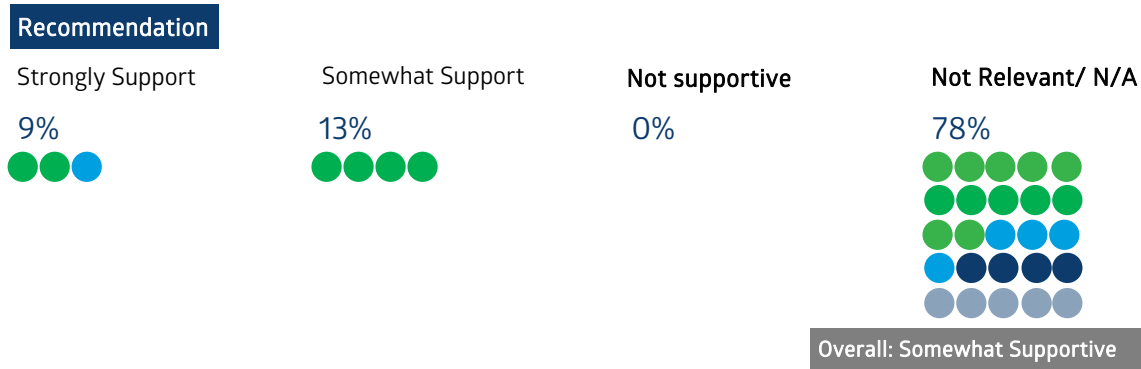
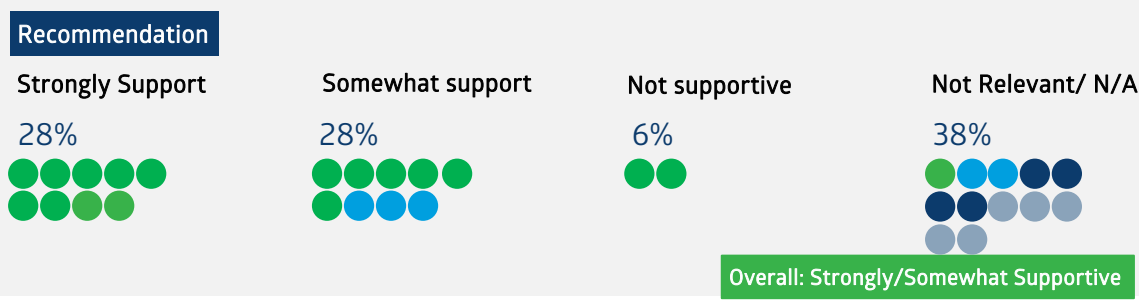
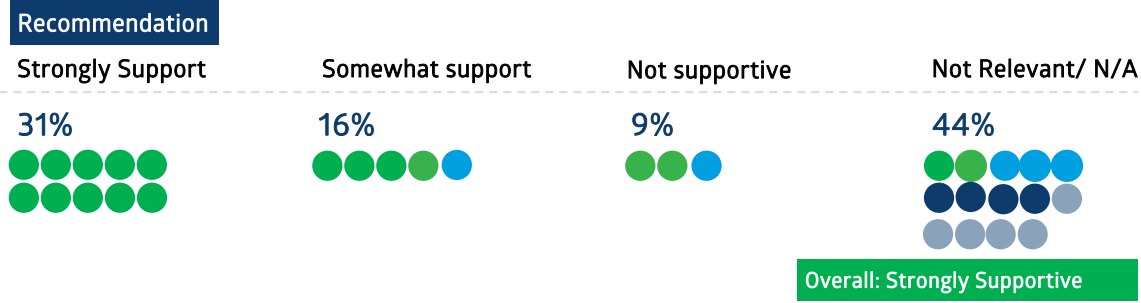
Reduce operational risk by ensuring participants are able to submit and match transactions in the system as soon as practical whilst minimising the likelihood of incurring a failed settlement (e.g. being able to separately match and schedule a transaction)

#### 2.2 Bilateral Matching Improvements -

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

#### 2.6 Settlement Enhancements -

Scheduled Settlement CHES to CHES Transfer Request (MT107) - support usage within a participant group structure



### Insights

- Overall: High Organisational Impact and Medium to High Priority.
- Strongly support but there are concerns around potential solutions and whether that would create increased uncertainty in the matching process.

- Overall: Low Organisational Impact and Medium Priority
- Support for matching on a common reference.
- Concerns if matching on additional criteria is not optional then there could be an increase in mismatches.

- Overall: Low Organisational Impact and Low Priority.
- Only relevant to a small number of participants.



# 02 – Scope Objectives & Survey

## Recap – Bilateral Matching Improvements

### 2.1 Bilateral Matching Improvements

Reduce operational risk by ensuring participants can submit and match transactions in the system as soon as practical whilst minimising the likelihood of incurring a failed settlement (e.g. being able to separately match and schedule a transaction)

#### Problem

- Participants risk incurring a settlement fail fee when instructions are matched, but fail in the absence of stock at the time of settlement. To overcome incurring settlement fail fees, common market practice is to ensure stock is received before sending out instructions for matching.
- This results in unmatched instructions and requires follow up to clarify if the other party recognises the trade and is unable to match, or whether the trade economics are not recognised or do not match and require further liaison with the client.
- These mismatches result in additional manual review to clarify the underlying reason for unmatched instructions which is time sensitive.

#### Industry Proposed Solution

- Provide the ability to match a transaction immediately with the ability to commit to settlement later.
- Leverage existing practices used in other markets (e.g. hold/release).
- Replicate the current pre-matching functionality that is used in upstream platforms (such as IRESS & CTM) in CHESSE.

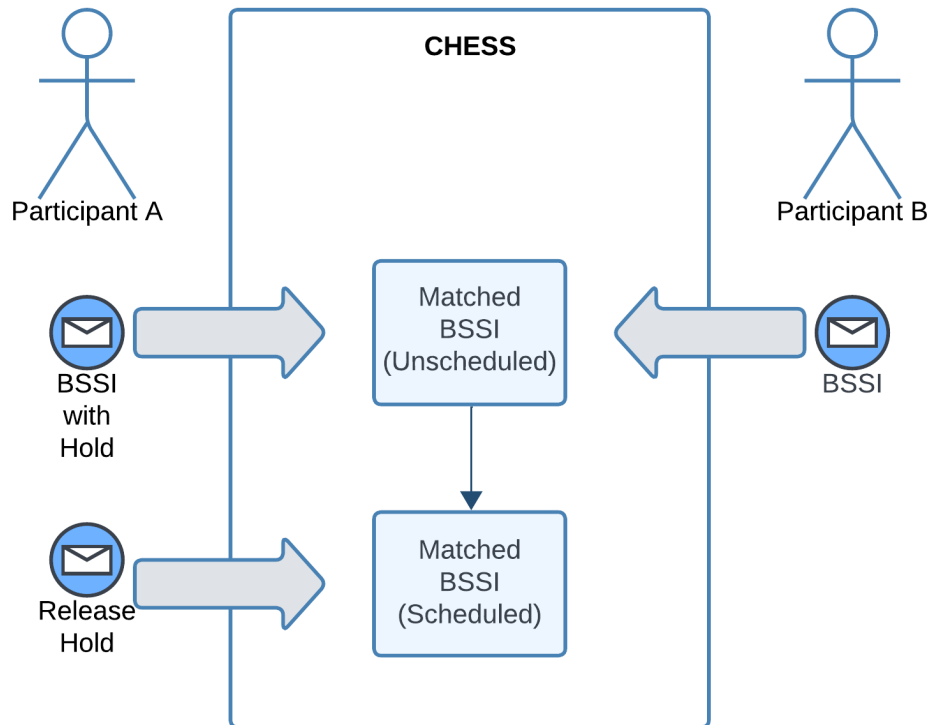
#### Business Benefits & Risks

- Business Outcomes/Benefits
  - Pre-matching means transactions can be matched in CHESSE more quickly.
  - May reduce the settlement risk in a T+1 environment.
  - Alleviates manual processes where a transaction has failed to match.
- Risk/Challenges
  - Should be an optional feature.
  - Consideration of the impact of fail fees on market practices.

# 02 – Bilateral Matching Improvements

## Potential Hold and Release

Provides optionality for one or both parties to submit bilateral settlement instructions for matching and then separately schedule the instruction for settlement.



- Bilaterally, Participants can submit their Settlement Instruction requests (BSSIs) with a "Hold" indicator.
  - The requests are eligible for matching.
  - Upon matching, the instruction is not automatically scheduled for settlement.
- Participants that request a "Hold" for their side of the instruction will then need to submit a request to "release the hold".
  - If both sides have a "Hold", then both participants will need to submit a request to "release the hold".
- Once the "Hold" is released, the matched instruction is then scheduled for settlement.

# 02 – Scope Objectives & Survey

## Recap – Bilateral Matching Improvements

### 2.2 Bilateral Matching Improvements

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

#### Problem

- Mismatches result in additional manual review to clarify the underlying transaction in the case of a failed settlement.
- Participants lack the visibility of underlying client details and are not made aware of matching discrepancies until a problem occurs. This creates unnecessary follow up matching with counterparties.

#### Industry Proposed Solution

- Introduction of a unique transaction identifier that has been agreed upstream in CHES.
- Requiring a bilateral account number provision by using field 97A (or its EIS/ISO equivalent) in both the sender block and the party details block.
- Client SSI's to be provided with each settlement instruction.
- Match on two separate additional fields - client account numbers for each side of the transaction

#### Business Benefits

- Provides participants with better visibility of the underlying transaction, which reduces mismatches and ensures stock goes to the intended recipient.
- Alleviates manual processes (such as approvals, follow up and reconciliations) for matches of non-batch settlements.
- Allows easier tracking of custodial settlement deliveries for clients.
- Alignment to industry practices & global markets

#### Risks/Challenges

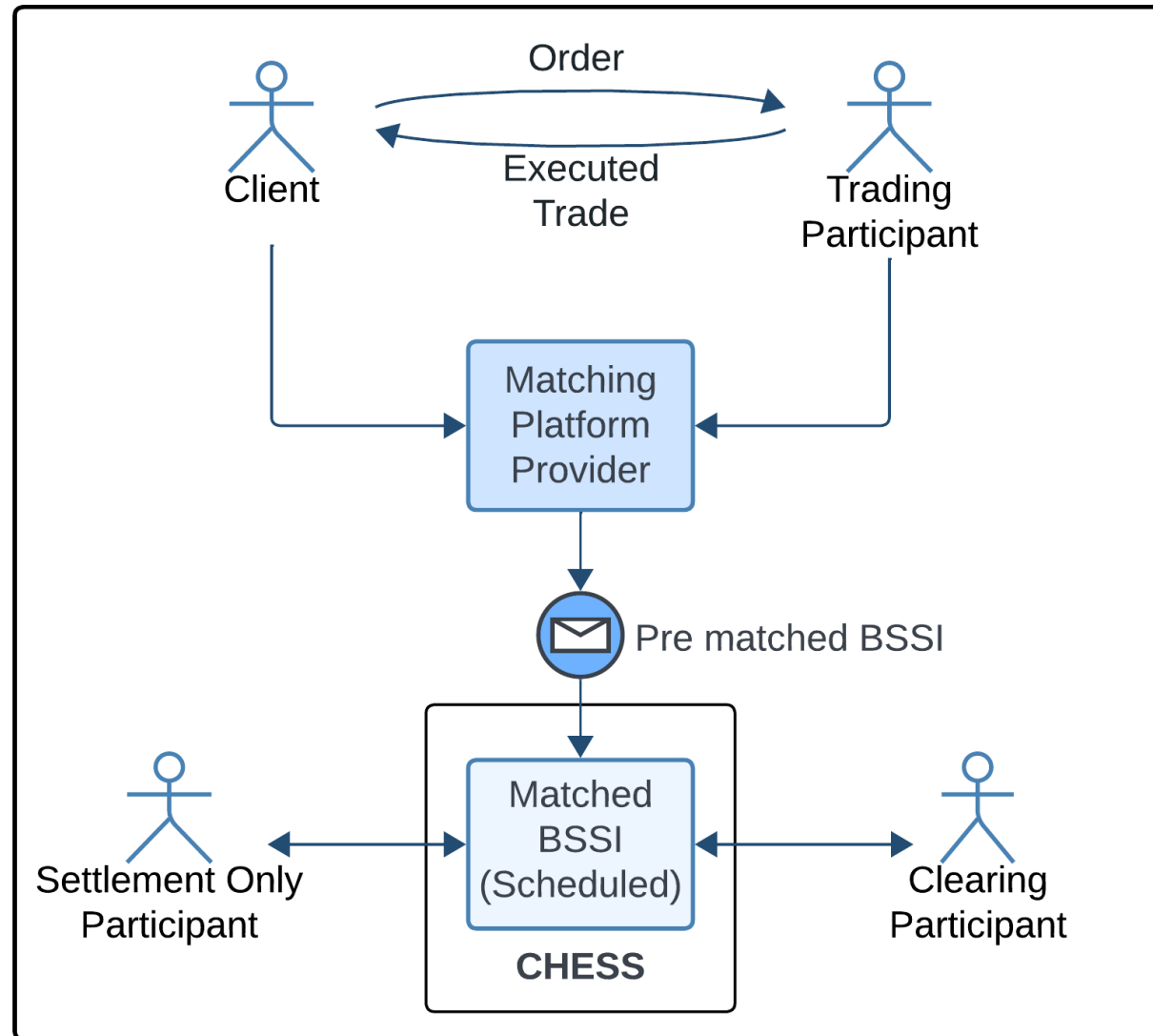
- Mandatory additional matching criteria is detrimental to broker businesses - misaligned view on whether or not the fields should be mandatory.
- Naming conventions using identifiers such as LEI are not ideal in a future T+1 market, we require a standard customer ID across the industry.
- Funds use custodians, and there are various spelling conventions therefore names are not specific enough to be used as an additional identifier, and it may be difficult to harmonise a standard common reference.
- Limited value if the fields are optional, may lead to increased failed trades especially when attempting to settle Institutional trades through Custodian/sub-custodian levels.
- Participant feedback is that it is not viable to expect international standards to align with common identifier usage - best to focus on the Australian market.



# 02 – Bilateral Matching Improvements

## Potential Pre-Matching Solution

The TCS BaNCS MI platform can accept pre-matched settlement instructions such as those matched on a matching platform provider (e.g. CTM or IRESS).



# 02 – Bilateral Matching Improvements

## Matching Criteria Supported in TCS BaNCS MI

### Mandatory Matching Fields

Both parties must provide matching values for these attributes.

Attributes can include (where applicable):

- Security
- Transaction basis
- Delivering/Receiving participant identifiers
- Delivering/Receiving securities movement
- Settlement amount (within a tolerance)
- Paying/Receiving Securities amounts
- Trade date
- Payment type (DvP, FOP, PFoD)



*As per current CHES*

### 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.

### Attributes supported – ISO 20022 sese.023 message

- Participant's client name
- Participant's account reference
- Common trade reference
- Partial settlement indicator
- Hold indicator
- Deal price type, rate, amount



- Are there values that you would like to see added to or removed from the matching criteria?
- Which values do you believe should be mandatory, additional or optional matching fields?



# 02 – Settlement Instructions

## Input UI Attributes - Continued

Receiving Party Details		A/c Owner		Cash A/c	
CSD BIC	<input type="text"/>	Party 2 ID	<input type="text"/>	Party 3 ID	<input type="text"/>
Party 1 BIC	<input type="text"/>	Party 2 BIC	<input type="text"/>	Party 3 BIC	<input type="text"/>
Party 1 A/c Ref	<input type="text"/>	Party 2 Scheme Name	<input type="text"/>	Party 3 Scheme Name	<input type="text"/>
Party 1 Processing ID	<input type="text"/>	Party 2 ID Issuer	<input type="text"/>	Party 3 ID Issuer	<input type="text"/>
		Party 2 Client Name	<input type="text"/>	Party 3 Client Name	<input type="text"/>
		Party 2 A/c Ref	<input type="text"/>	Party 3 A/c Ref	<input type="text"/>
Party 4 ID	<input type="text"/>	Party 5 ID	<input type="text"/>		
Party 4 BIC	<input type="text"/>	Party 5 BIC	<input type="text"/>		
Party 4 Scheme Name	<input type="text"/>	Party 5 Scheme Name	<input type="text"/>		
Party 4 ID Issuer	<input type="text"/>	Party 5 ID Issuer	<input type="text"/>		
Party 4 Client Name	<input type="text"/>	Party 5 Client Name	<input type="text"/>		
Party 4 A/c Ref	<input type="text"/>	Party 5 A/c Ref	<input type="text"/>		
Other Details		Processing Status		Processing Status Reason Info	
Processing Status	<input type="text"/>	Processing Status Code	<input type="text"/>	Processing Status Reason Info	<input type="text"/>
Matching Status	<input type="text"/>	Settlement Status	<input type="text"/>	Settlement Status Code	<input type="text"/>
Settlement Status Reason Info	<input type="text"/>	Creation Timestamp	<input type="text"/>	Updated Timestamp	<input type="text"/>
Acknowledgement Timestamp	<input type="text"/>	Matching Timestamp	<input type="text"/>	Settlement Timestamp	<input type="text"/>
Pool Reference	<input type="text"/>	Current Instruction Number	<input type="text"/>	Total No. of Linked Instructions	<input type="text"/>
Common Trade Reference	<input type="text"/>	Corporate Action Event ID	<input type="text"/>	Collateral Transaction ID	<input type="text"/>
Deal Price Type	<input type="text"/>	Deal Price Rate	<input type="text"/>	Deal Price Amount	<input type="text"/>
Deal Price Currency	<input type="text"/>	Deal Price Yielded	<input type="text"/>	Number Of Days Accrued	<input type="text"/>
CSD Hold	<input type="text"/>	COSD Hold	<input type="text"/>	Transformation Condition Code	<input type="text"/>
Partial Release Quantity	<input type="text"/>	Modification / Cancellation Allowed	<input type="text"/>	Partial Successful Buy-In	<input type="text"/>
Place of Clearing	<input type="text"/>	Market Type	<input type="text"/>	Place of Trade (MIC)	<input type="text"/>
Place of Trade (Description)	<input type="text"/>	Opt Out Indicator	<input type="text"/>	CUM / EX Indicator	<input type="text"/>
ADEA Indicator	<input type="text"/>	Party Hold	<input type="text"/>	Reason For Hold	<input type="text"/>
Priority	<input type="text"/>	Cancellation Reason	<input type="text"/>	Cancellation Event ID	<input type="text"/>



# 02 – Settlement Instructions

## Query UI

**Query Settlement Instructions**

Instruction Ref	<input type="text"/>	Instructing Party Ref	<input type="text"/>	Market Infrastructure ID	<input type="text"/>
Payment Type	Select	Instructing Party BIC	<input type="text"/>	Securities Transaction Type	Select
Settlement Quantity	<input type="text"/>	Settlement Currency	Select	Settlement Amount	<input type="text"/>
Securities Movement Type	Select	Corporate Action Event ID	<input type="text"/>	Matching Ref	<input type="text"/>
Credit/Debit Indicator	Select	Trade Date From	<input type="text"/>	Trade Date To	<input type="text"/>
Instrument ID	ISIN <input type="text"/>	Intended Settlement Date From	20/05/2024	Intended Settlement Date To	20/05/2024
Quotation Code	<input type="text"/>	Settlement Date From	<input type="text"/>	Settlement Date To	<input type="text"/>
Partial Settlement Indicator	Select	Transformation Condition Code	Select	Priority	Select
Common Trade Ref	<input type="text"/>	Delivering Party1 BIC	<input type="text"/>	Delivering Party 1 A/c Ref	<input type="text"/>
Delivering Party 1 A/c Owner	BUID <input type="text"/>	Delivering Party Cash A/c	<input type="text"/>	Delivering Party 2 ID	BUID <input type="text"/>
Receiving Party 1 BIC	<input type="text"/>	Receiving Party 1 A/c Ref	<input type="text"/>	Receiving Party 1 A/c Owner	BUID <input type="text"/>
Receiving Party Cash A/c	<input type="text"/>	Receiving Party 2 ID	BUID <input type="text"/>	Processing Status	Select
Processing Status Code	Select	Matching Status	Select	Settlement Status	Select
Settlement Status Code	Select	Hold Indicator	Select	Linked Txn ID	<input type="text"/>
Seller Securities Sub Balance ID	<input type="text"/>	Pool Ref	<input type="text"/>		

Instruction Ref	Securities Movement Type	Payment Type	Securities Transaction Type	Instructing Party Ref	Matching Ref	Market Infrastructure ID	Corporate Action Event ID	Instructing Party BIC	Trade Date	Intended Settlement Date	Settlement Date	Delivering Party 1 BIC	Receiving Party 1 BIC	Delivering Party 1 A/c Owner	Receiving Party 1 A/c
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# 02 – Scope Objectives & Survey

## Recap – Bilateral Matching Improvements

### 2.6 Settlement enhancements

Scheduled Settlement CHES to CHES Transfer Request (MT107) - support usage within a participant group structure

#### Problem

- Currently, the Scheduled Settlement CHES to CHES Transfer Request (MT107) enables a participant to schedule the transfer of securities between their CHES holdings in a future settlement cycle and capture trust fund reporting.
- Feedback has been received requesting that the MT107 be extended to usage under participant group structures to enable settlement directly to a client's HIN using only one step.

#### Industry Proposed Solution

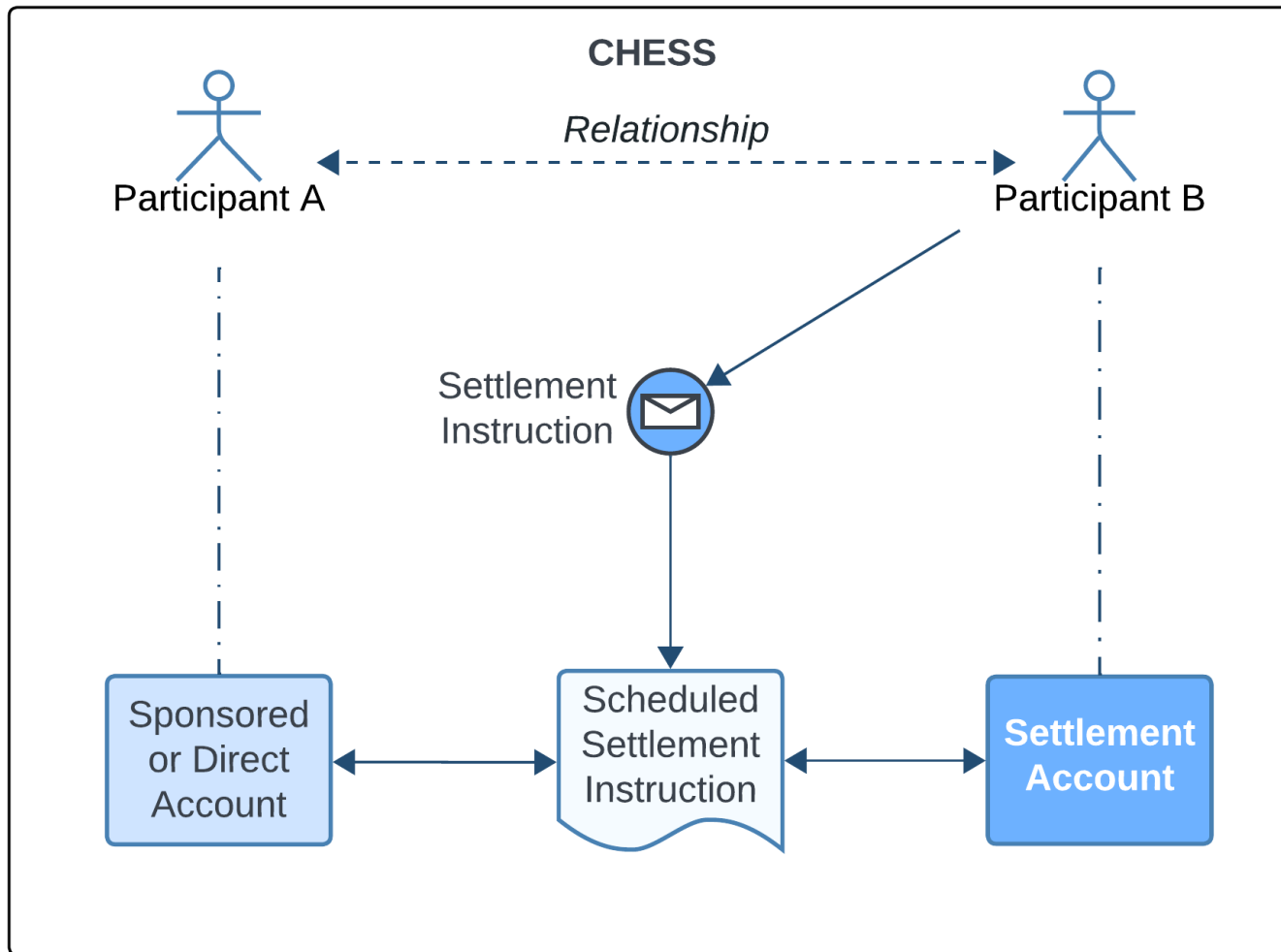
- The current process to facilitate settlement, for example, where a client has sold units, requires a two-step process:
  1. Move units from Client A's HIN to the participants Accumulation account via MT003.
  2. Move units from Accumulation account to Settlement account via MT107.
- Feedback has been received requesting to streamline this process to:
  1. Move units from Client A's HIN to the Participant's Settlement HIN via MT107.

#### Business Benefits & Risks

- Business Outcomes/Benefits
  - If a solution in current CHES resulted in a broader market impact (external release) that consideration for the change could be captured in CHES Replacement.
- Risk/Challenges
  - MT003 does not facilitate a transfer from a client HIN directly to a Settlement HIN, it does not schedule and it does not carry a trustable amount.
  - MT107 does not allow for movements across related participant structures.

# 02 – Bilateral Matching Improvements

## Related Participant Instructions



- The platform can accept a settlement instruction between accounts controlled by two different participants where a relationship is set up between the participants.
- The relationship between participants would be set up in the participant reference data within the CHES Replacement system (similar to participant group structures setup by ASX Operations in current CHES).

# 02 – Holding Transfers and Settlement Instructions

## Other Features

- **Linkages** – linking two or more settlement instructions together.
  - Linkages can be used for:
    - Linking instructions together that are contingent on each other for settlement; or
    - Linking instructions for information purposes, but the instructions are not contingent on each other for settlement.
- **Settlement locking** – reserving all or part of a holding for the purposes for fulfilling a delivering settlement instruction or holding transfer.

# 03a – Batch Settlement



# 03a – Batch Settlement

## Process Overview



TCS BaNCS MI supports:

- Single process that can continue to begin at 11:30am.
- Settlement cut-off extension and notification.
- Prioritising settlement of previous day fails in algorithms.
- System processing during the settlement cycle (e.g. Trade Registration, Account Creation, Matching for future settlement cycles).
  - Restrictions remain on requests that change holdings. Requests via messaging will be queued and processed following completion of the settlement cycle.

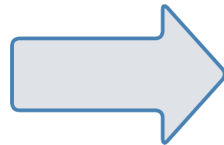
# 03a – Batch Settlement

## Settlement Obligation Modelling

- Once a Gross Market Trade or Settlement Instruction is scheduled for settlement, the system maintains the obligation, including what has been settled and what remains to be settled, until it is fully settled.
- The system will not create additional obligations to represent failed, rescheduled, or part-settled components (e.g. the NSF/NRI instructions relating to failed novated positions, and the splitting of part settled settlement instructions that was modelled in the previous solution design).

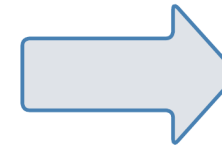
### Obligation Scheduled for Settlement for 29/05/2024

- Security: ABC
- Settlement Date: 29/05/2024
- Securities Movement: DELI
- Cr/Dr Indicator: Credit
- Unit Quantity: 100
- Settlement Amount: 100
- Remaining Unit Quantity: 100
- Remaining Settlement Amount: 100
- Settled Unit Quantity: 0
- Settled Settlement Amount: 0



### Part settlement of 40 units on 29/05/2024 60 units are rescheduled to the following day's settlement cycle 30/05/2024

- Security: ABC
- Settlement Date: 30/05/2024
- Securities Movement: DELI
- Cr/Dr Indicator: Credit
- Unit Quantity: 100
- Settlement Amount: 100
- Remaining Unit Quantity: 60
- Remaining Settlement Amount: 60
- Settled Unit Quantity: 40
- Settled Settlement Amount: 40



### Remaining Units Fully Settle on 30/05/2024

- Security: ABC
- Settlement Date: 30/05/2024
- Securities Movement: DELI
- Cr/Dr Indicator: Credit
- Unit Quantity: 100
- Settlement Amount: 100
- Remaining Unit Quantity: 0
- Remaining Settlement Amount: 0
- Settled Unit Quantity: 100
- Settled Settlement Amount: 100

# 03a – Batch Settlement

## Net Obligation Fails and SSP – Current CHES

- If one participant fails to deliver the financial products to cover its net obligation to the CCP, a similar net obligation must be failed from the CCP to another participant. As it is likely that these two net obligations have different average settlement prices per unit, the CCP would have to fund the difference.
- As it currently stands in CHES, where a net obligation fails to settle, in part or in full, CHES uses a standard settlement price (SSP) to avoid the CCP having to fund the settlement.
- The application of an SSP has the effect of marking-to-market any failed net obligations within the settlement cycle so that the value of the failed net obligation reflects the current market price, and the difference (i.e. SSP Adjustment) is paid or received by the participants with the failed net obligations.

	Net Obligation		Settlement Outcome	Settlement Amount with SSP Adjustment \$3.00 per unit
<b>Participant A</b>	Deliver 10 units	Receive \$20	<b>Fully fails</b>	<b>Pays \$10</b>
<b>Participant B</b>	Deliver 20 units	Receive \$50	Fully Settles	(as per obligation)
<b>Participant C</b>	Receive 15 units	Pay \$30	Fully Settles	(as per obligation)
<b>Participant D</b>	Receive 15 units	Pay \$40	<b>Part Settles (Receives 5 units)</b>	<b>Pays \$10</b>

### Example

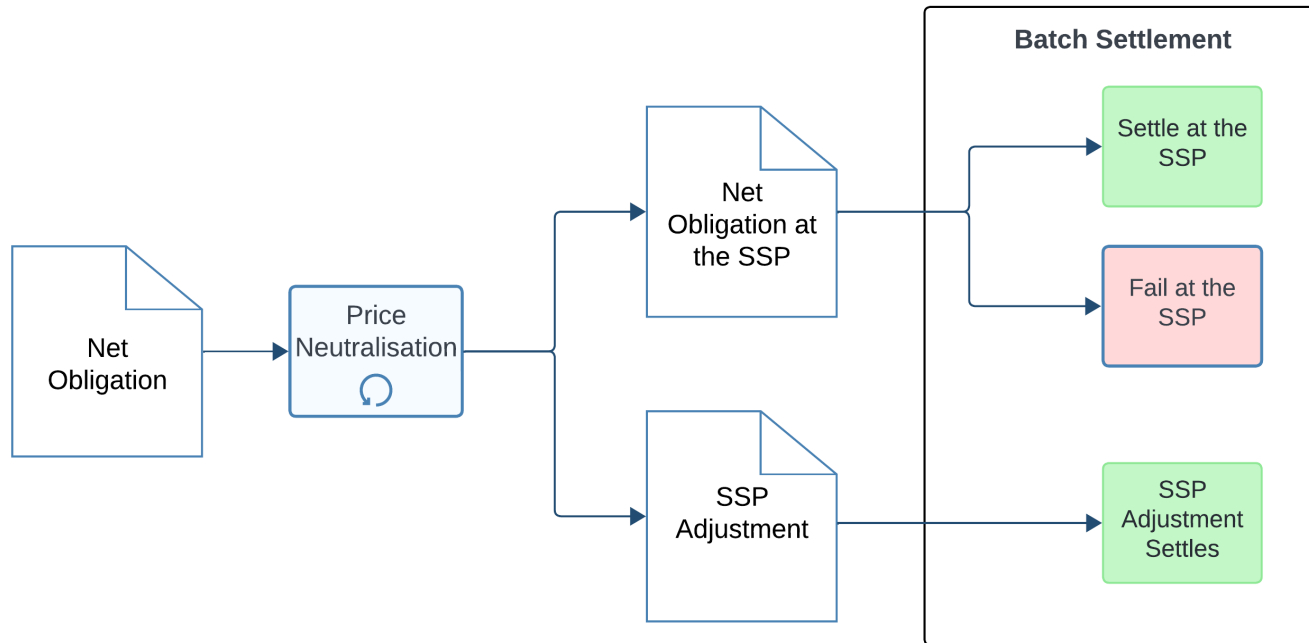
- Participant A was due to receive \$20 but using the SSP of \$3.00, the net obligation is marked to market, and is now worth \$30.
  - Participant A must therefore pay \$10 in this settlement process.
  - If the net obligation is settled in the next settlement cycle, Participant A will receive \$30 (the original \$20 plus the additional \$10).
- Participant D was due to receive 15 units but will only receive 5 units. Using the SSP of \$3.00, the 10 outstanding units are worth \$30.
  - Participant D must therefore pay \$10 to receive the 5 units instead of \$13.33 ( $\$40.00 * 5 \text{ units} / 15 \text{ units}$ , which it would have been if the average unit price were used).
  - The rescheduled net obligation now indicates that Participant D is due to receive 10 units in return for payment of \$30.

# 03a – Batch Settlement

## Net Obligation Fails and SSP - TCS Adaptation from Other Markets

In another market, the TCS BaNCS system follows an alternative method where all net obligations under a *price neutralisation* process (i.e. marked to market at the SSP) prior to the settlement cycle, resulting in:

- The net obligations for a given security are taken into settlement with a settlement amount calculated at the SSP; and
- A separate "SSP Adjustment" obligation to be settled (difference between the current value and the original settlement amount).



- The Net Obligation will either settle or fail (in full or in part) at the SSP.
  - All Net Obligations fails will be at the same price and thus will not require funding by the CCP.
- SSP Adjustment will always be settled by the participant.
- Outcome is as per current CHES:
  - Net Obligation Settlement Amount @ SSP + SSP Adjustment = Original Net Obligation Settlement Amount

# 03a – Batch Settlement

## Net Obligation Fails and SSP – Example of the TCS Adaptation

	Original Net Obligation		Net Obligation with Price Neutralisation at SSP of \$3.00 per unit		SSP Adjustment	Settlement Outcome	Net Obligation (@SSP) Settled	SSP Adjustment Settled	Net of the Obligation and SSP Adjustment Settled	Net Obligation rescheduled	
	Deliver	Receive	Deliver	Receive						Deliver	Receive
<b>Participant A</b>	Deliver 10 units	Receive \$20	Deliver 10 units	Receive \$30	Pay \$10	Fully fails	\$0	Pay \$10	Pays \$10	Deliver 10 units	Receive \$30
<b>Participant B</b>	Deliver 20 units	Receive \$50	Deliver 20 units	Receive \$60	Pay \$10	Fully Settles	Receive \$60	Pay \$10	Receive \$50	Fully Settled	
<b>Participant C</b>	Receive 15 units	Pay \$30	Receive 15 units	Pay \$45	Receive \$15	Fully Settles	Pay \$45	Receive \$15	Pay \$30		
<b>Participant D</b>	Receive 15 units	Pay \$40	Receive 15 units	Pay \$45	Receive \$5	Part Settles (Receives 5 units)	Pay \$15	Receive \$5	Pays \$10	Receive 10 units	Pay \$30

### Example

- Participant A was due to receive \$20 but using the SSP of \$3.00, the net obligation is marked to market, and is now worth \$30. The settlement amount is updated to reflect this and a SSP Adjustment to pay \$10 is generated.
  - Participant A fails to deliver any units must therefore pay \$10 SSP Adjustment in this settlement process.
  - If the net obligation is settled in the next settlement cycle, Participant A will receive \$30 (the original \$20 plus the additional \$10).
- Participant D was due to receive 15 units and pay \$40 but using the SSP of \$3.00, the net obligation is marked to market, and is now worth \$45. The settlement amount is updated to reflect this and an SSP Adjustment to receive \$5 is generated).
  - Participant D will only receive 5 units in settlement due to Participant A failing to deliver.
  - Participant D must pay \$15 to receive the 5 units (\$45.00 \* 5 units/15 units) and will receive a \$5 SSP adjustment and therefore pays \$10
  - The rescheduled net obligation now indicates that Participant D is due to receive 10 units in return for payment of \$30.
- Participant B and C have net obligations that are marked to market with settlement amounts updated to reflect the current value and an SSP Adjustment generated.
  - The net obligations and SSP adjustments fully settle – the settlement amounts of price neutralised net settlement obligations and SSP adjustments netted together result in the settlement amount of the original net obligation.

### **i** Outcome as per Current CHES

**Considerations for this adaptation:**

- When visibility of this process is required
  - Net obligation (Original/Adjusted)
  - SSP Adjustment is generated
  - Fully Settled Obligations
  - Failed Net Obligations
- How the SSP adjustment should be notified i.e. as a
  - Separate obligation; or
  - Part of the Net Obligation
- Are there any other considerations?





# 03a – Batch Settlement

## Settlement Notifications

- The TCS BaNCS MI platform supports providing notifications for each settlement obligation that:
  - Fully Settles;
  - Part Settles; or
  - Fully Fails in the settlement cycle.
- The system will provide a single notification for each obligation notifying its outcome in the settlement cycle and will not provide separate notifications for failed and rescheduled components as was the case in the previous solution design.
- Notifications for failed settlements will include applicable reasons for the fail such (e.g. Unit Failure or Funds Failure).

# 03b – Payment Related Processes

# 03b - Previous Survey Playback

## Recap – Payment Related Process Enhancements

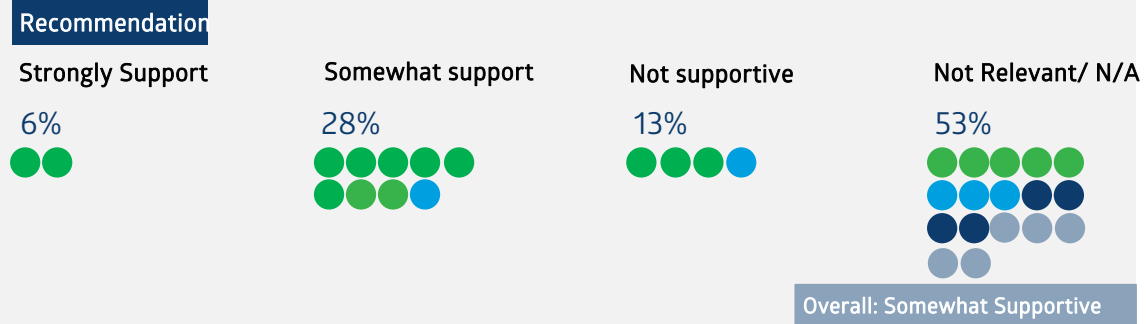
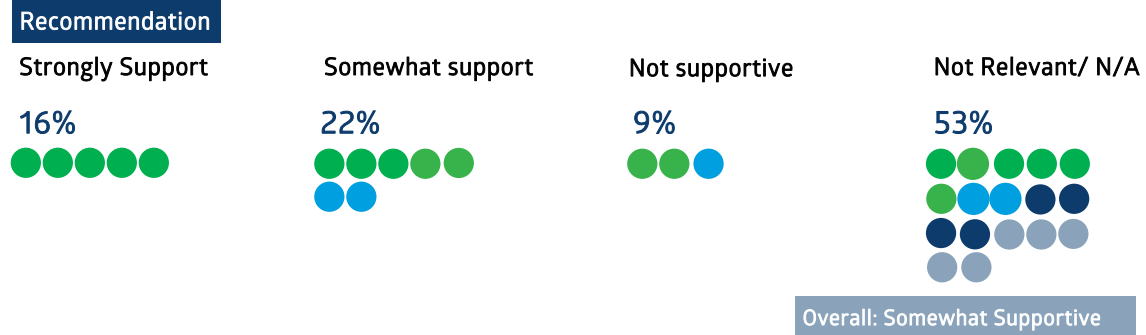
### Scope Objective

#### 2.3 Settlement Enhancements -

Reduce operational overhead in relation to payment provider authorisations by allowing for automated approvals in the system within cash limits.

#### 2.4 Settlement Enhancements -

Provide more certainty by enabling more frequent and/or configurable access to preliminary payment data.



Key | ● Software Providers ● C&S Participant ● AMO ● Share Registries

### Insights

- Overall: Low Organisational Impact and Low Priority
- Low priority for participants that are not payment providers.
- Participants have internal risk management processes.

- Overall: Low Organisational Impact and Low Priority
- Although there is benefit in seeing projected payment details, the exposure is changing up until settlement cutoff and the outcome of batch settlement is known.

# 03b – Scope Objectives & Survey

## Recap – Automated Payment Approvals

### 2.3 Settlement enhancements

Reduce operational overhead in relation to payment provider authorisations by allowing for automated approvals in the system within cash limits.

#### Problem

- Currently, payment providers authorise a single cash movement per day for batch settlement. In the previous design of CHES replacement, as a result of corporate actions/bilateral settlement, multiple cash movements would require authorisation throughout the day.
- That number of manual authorisations should be automated to match or reduce the current effort required with existing methods.

#### Industry Proposed Solution

- Limits for non-batch DVP settlements should be configurable at the financial institution level.
- To approve every line of non-batch settlements is not sustainable from a business point of view - an automated solution which is similar to batch DVP settlements is required.

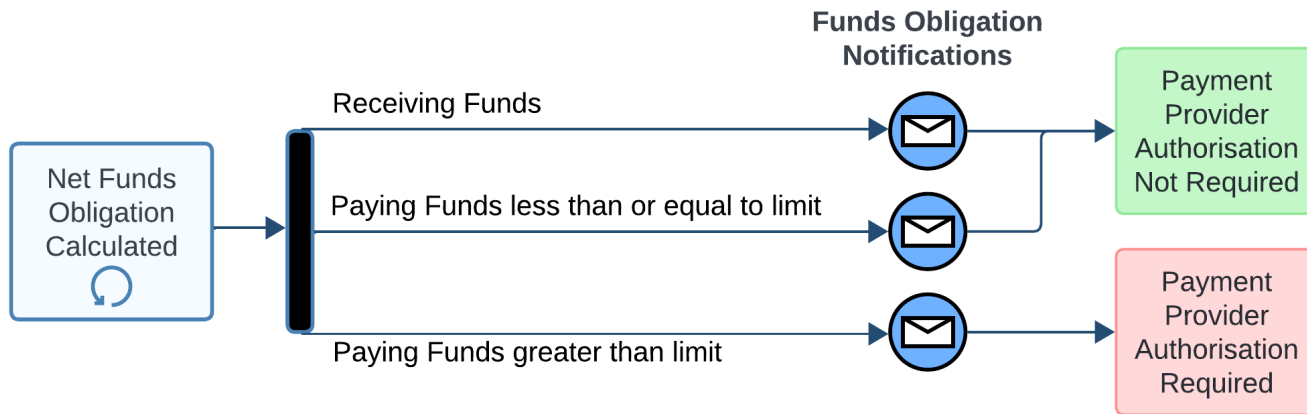
#### Business Benefits & Risks

- Business Outcomes/Benefits
  - Ensuring a limit is in place will enhance and streamline the end-to-end STP process for all brokers.
  - Automation of pre-authorising non batch DVP settlements removes tedious administrative overhead of approving hundreds of transactions daily.
- Risk/Challenges
  - Possibility of a scenario where an instruction fails because the third party bank does not have sufficient cash for the participant.

# 03b – Payment Related Processes

## Pre-Approved Limits and Authorisations

- The TCS BaNCS MI platform supports the setup of pre-approved payment limits for payment facilities.
- During the batch settlement cycle, the net funds obligation is calculated for each payment facility and notified to the participant and payment provider.
- Payment Provider authorisations are only required where the net funds obligation calculated for a payment facility in the settlement exceeds the pre-approved limit set.



Automated authorisations will shorten batch settlement and could therefore help with T+1 by providing settlement outcomes sooner and more time for post-batch operational processes.

- Setting a pre-approved limit of \$0 effectively reproduces the existing behaviour in CHES where any paying net funds obligation will require payment provider authorisation.
- Pre-approved limits can be increased or decreased as required.
- The system provides dashboards for participant net funds obligations that can trigger alerting where pre-approved limits are breached.



# 03b – Scope Objectives & Survey

## Recap – Preliminary Payment Notifications

### 2.4 Settlement enhancements

Provide more certainty by enabling more frequent and/or configurable access to preliminary payment data.

#### Problem

- Currently CHESSE notifies participants and payment providers about projected payments overnight prior to settlement.
- Participant systems only calculate based on instructions matched in the market. If a settlement fails, these systems do not provide a preliminary figure to help with the preparation of payment amounts required for settlement.

#### Industry Proposed Solution

- Projections of what will fail or be matched should be available prior to the 11:30am batch settlement.
- Participants should have the ability to request notifications from CHESSE.
- A standard preliminary figure could be derived using the EIS 310 message (or ISO Equivalent) of funds at a point in time. There is the risk that this number could change by the minute prior to batch settlement at 11:30am.

#### Business Benefits & Risks

- Business Outcomes/Benefits
  - Would be beneficial if reports are configurable and can be scheduled every half hour leading up to settlement, or during specific times of the day, especially if the movement of the batch is later in the settlement day. This would reduce the need for last minute manual reconciliations.
  - If notifications are available on request there is a benefit from a treasury perspective.
- Risk/Challenges
  - If preliminary projection of payments is to include factors such as what will settle vs what will fail, that will require the running of a settlement simulation prior to the actual settlement. This option could be challenging to achieve.
  - This functionality should only be offered on an optional basis – participants should be able to ignore if this feature is not useful to their business model.

# 03b – Batch Settlement

## Payment Reporting

TCS BaNCS MI provides dashboards/reports for net funds obligations and for securities net delivery, or receiving positions based on positions/settlement obligations scheduled in the system.

- These dashboards and reports assume settlement of the obligations scheduled and do not consider whether there will be a unit or funds shortfall.

ROTCI01310	
<b>Clearing Member Cash Obligation Report</b>	
<b>Business Date :</b> 03/01/2024	<b>Print Date :</b> 03/01/2024

<b>Clearing Member Id :</b>	CLG-1	<b>Clearing Member Name :</b>	TRA009	
<b>Settlement Date :</b>	04/01/2024			
<b>Cash Account</b>	<b>Purpose</b>	<b>Debit in EUR</b>	<b>Credit in EUR</b>	<b>Net Amount in EUR</b>
	Capital Events	36.511,30	21.552.362,86	21.515.851,56 Cr
	Settlement	200.100,00	275.000,00	74.900,00 Cr
A/C Reference 1	Capital Events	60.432,84	2.571.409,59	2.510.976,75 Cr
A/C Reference 2	Settlement	0	1.003.010,00	1.003.010,00 Cr

# 03b – Batch Settlement

## Securities Delivery and Receipt Reporting

Member BP ID: CM00001 A/c No: 251333 Exchange: NYSE Market: Normal Segment: Equity Cash					
Settlement Date	Instrument ID	Quantity	Obligation type	Status	Counterparty
26/11/2011	ABC	1500	Deliver	Ready for Settlement	CCP
26/11/2011	DEF	873	Receive	Ready for Settlement	CCP
27/11/2011	GHI	217	Receive	Ready for Settlement	CCP
28/11/2011	XYZ	662	Deliver	Ready for Settlement	CCP

## 04 – Non Batch DvP

# 04 – Non-Batch DvP

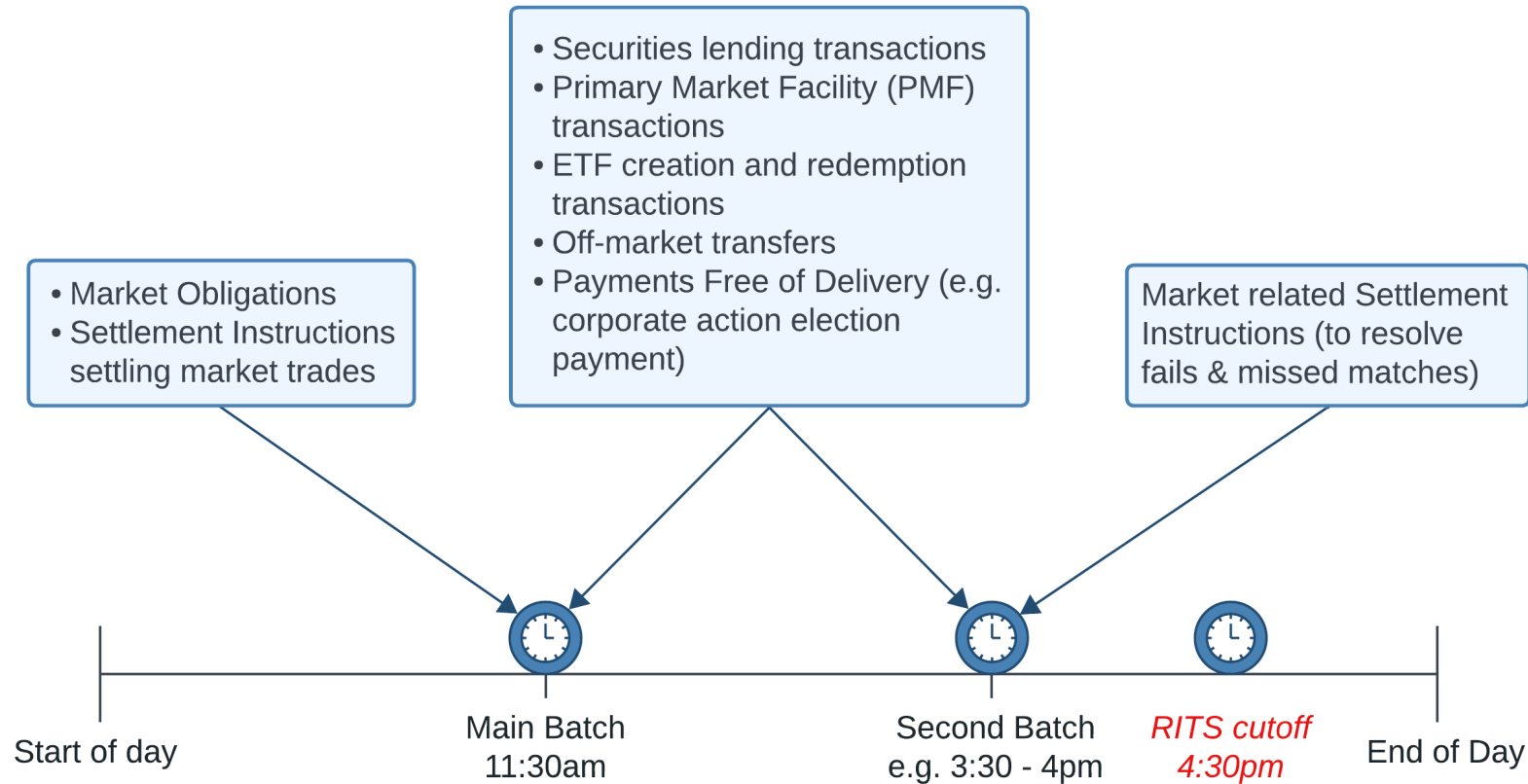
## Overview

- Prior to the project pause, the CHES Replacement solution proposed the following settlement capabilities using the RITS RTGS payment channel:
  - DvP settlement on a gross basis – i.e. Bilateral Demand Settlement Instruction; and
  - Payments Free of Delivery (PFoD) for Entitlement Elections (as a "Day 2" capability).
    - *Note: Entitlement Elections is a topic for discussion in the July BDWG.*
- Feedback received to date indicates:
  - A single batch settlement cycle provides Participants with certainty of settlement outcomes to complete the current day's operational processes (e.g. client allocations and payments, any remediations for corporate actions, and other post-batch activities) and prepare for the following day's settlement.
  - Non-batch DvP (or PFoD) settlement on a gross basis may not be practical for scalable operational processes and carry a high transaction cost.
- TCS BaNCS MI supports:
  - Demand DvP settlement on a gross basis, and
  - Multiple batch settlement cycles.



# 04 – Non-Batch DvP

## For Discussion - Potential Multiple Batch Solution



- An alternative to Non-Batch DvP on a demand gross basis is a second batch settlement cycle.
- Transaction type or other indicator on a settlement instruction request would be used to schedule the obligation for either the main batch or second batch.
- Market obligations and related settlement instructions would need to be settled in the main batch.
- Other use cases could be settled in either batch cycle.
- System could also allow participants to re-input market related bilateral DvPs (i.e to resolve fails and missed matches in the main batch) for settlement in the second batch.
- Main batch fails would **not** be re-scheduled to the second batch.

# 04 – Non-Batch DvP

## For Discussion - Considerations and Enablers

- **Threshold considerations**
  - Industry requirement for DvP (or PFoD) settlement post the 11:30am "main" batch settlement cycle; and
  - Industry preference for gross settlement on demand and/or a multilateral net in a second batch run.
- **Other considerations**
  - Use cases applicable to the "main" settlement cycle and/or to a "second" batch cycle or non-batch settlement.
  - Participant and Payment Provider operational processes.
  - Timing of a "second" batch / Timing window for non-batch settlement.
- **Enablers for non-batch settlement / second batch**
  - RITS cut-off 4:30pm (or is a greater window required?).
  - Appropriate payment channels for DvP and PFoD use cases.
  - Pre-approved payment limits and automated payment approvals.
  - Locking of Units.



Are there other considerations and enablers?

Design considerations will be subject to engagement with RBA and Payment Providers and their requirements.

# 05 – Next Steps

# 05 – Business Design Document

## Summary

- ASX will create a Business Design Document on Settlement for your review.
- This will include information in relation to:
  - Market settlement obligations, holding transfers and
  - Position to settlement account mapping and scheduling of obligations for settlement
  - Batch settlement process
  - Pre-approved payment limits and automated Payment Provider authorisations
  - Non-batch DvP
  - Payment related process for batch settlement and non-batch DvP.
  - Access channels (UI, ISO20022)
  - Non-functional considerations
  - Any other considerations

# 05 – Next Steps

## Preparation Steps to Complete

- Review the draft Business Design Document when received in approximately 2 weeks and provide feedback to us within the required timeframe.
- A BDWG will be held in August 2024 for Cum Entitlement Balance transfers and any further considerations for Settlement.
- A BDWG will be held in September 2024 for Market Claims and Diary Adjustments.
- We will also hold deep dives on ETF creation and redemption processes and usage of transaction basis later this year.
- Please inform us of any changes to your nominated representatives to [CHESSReplacement@asx.com.au](mailto:CHESSReplacement@asx.com.au)
- Please complete the feedback request that will be shared with you after this workshop.



QUESTIONS?





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THANK YOU.

