

ASX

CHESS Replacement Solution

Industry Webinar

21 November 2023



ASX

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

ARTWORK BY: LEE ANNE HALL, MY COUNTRY MY PEOPLE



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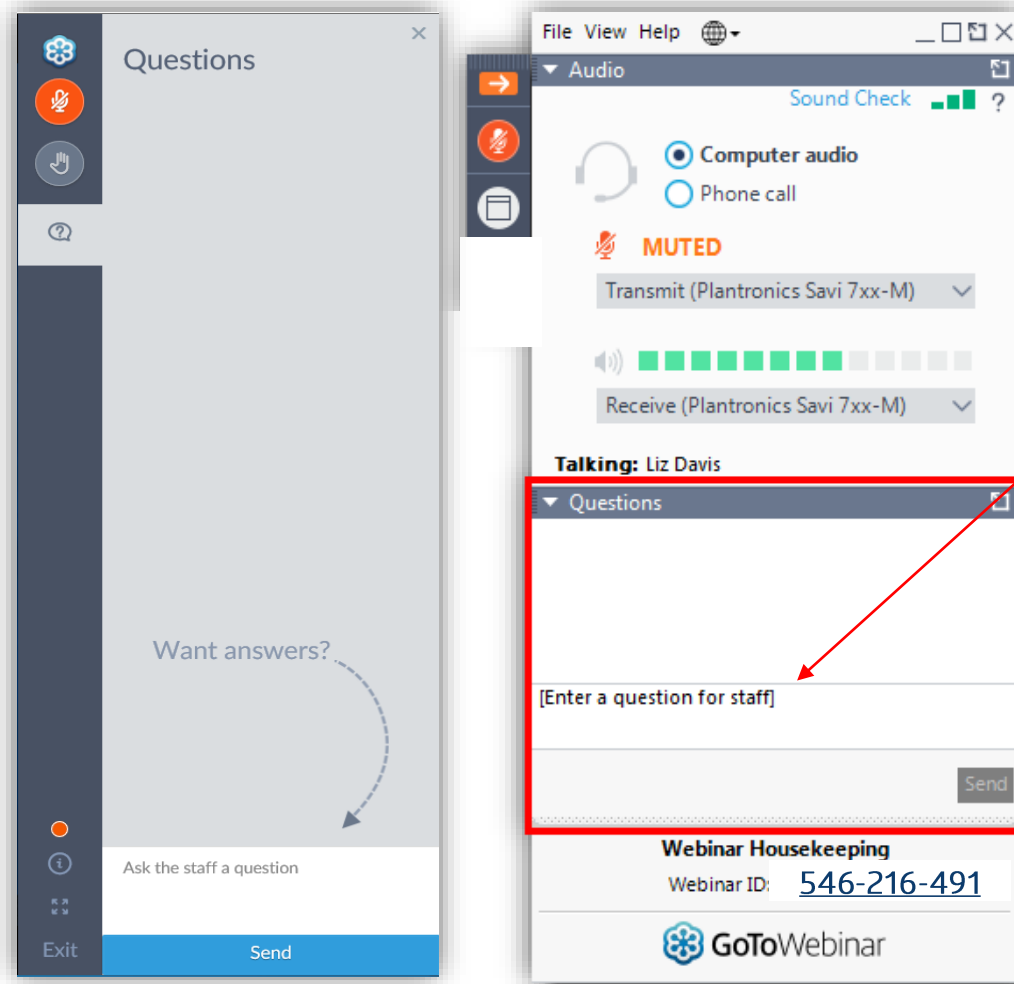
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Industry Webinar

Today's presenters

> **Tim Whiteley**

- Chief Information Officer - CHESSE Replacement Project Director

> **Clive Triance**

- Group Executive - Securities & Payments and CHESSE Replacement Project Sponsor

> **Katie McDermott**

- General Manager - CHESSE Replacement Business Lead

Agenda

01 – CHESS Replacement Vision & Objectives

02 – Solution Design & Benefits

03 – Industry Impact & Benefits

04 – Project Timeline & Industry Consultation

05 – Delivery Partners



01 - CHESSE Replacement

Vision & Objectives

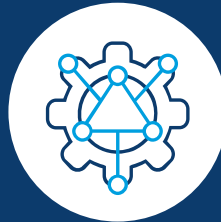
01 – Project Objectives

Replacing CHESSE with a platform that is supportable, reliable, scalable and meets the market's needs



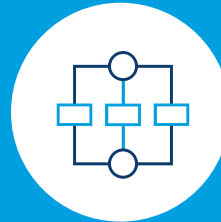
Licences

Implement a CHESSE replacement system that meets the requirements of our CS facility licences



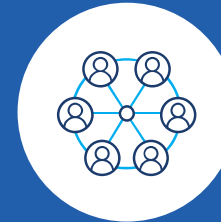
Supportable solution

Deliver a supportable technology solution that is enterprise grade and is capable of underpinning the Australian financial market



Implementation plan

Robust plan to implement CHESSE replacement reliably and efficiently



Industry impact

Consideration of the impact on stakeholders including opportunities to reuse work



Innovation

Create opportunities for industry efficiencies and growth and support future innovation

01 – Solution Archetypes

The following archetypes were identified and used to inform solution options



Fix CHES Replacement

Solutions based on the first iteration of CHES replacement to solve core issues and/or simplify the complexity of the overall solution architecture



Build custom solution

Solutions designed from ground-up with conventional technologies and aligned with principles and IT strategy



Product based solution

Rely on a vendor product with additional custom build components if required



Iterate over current CHES

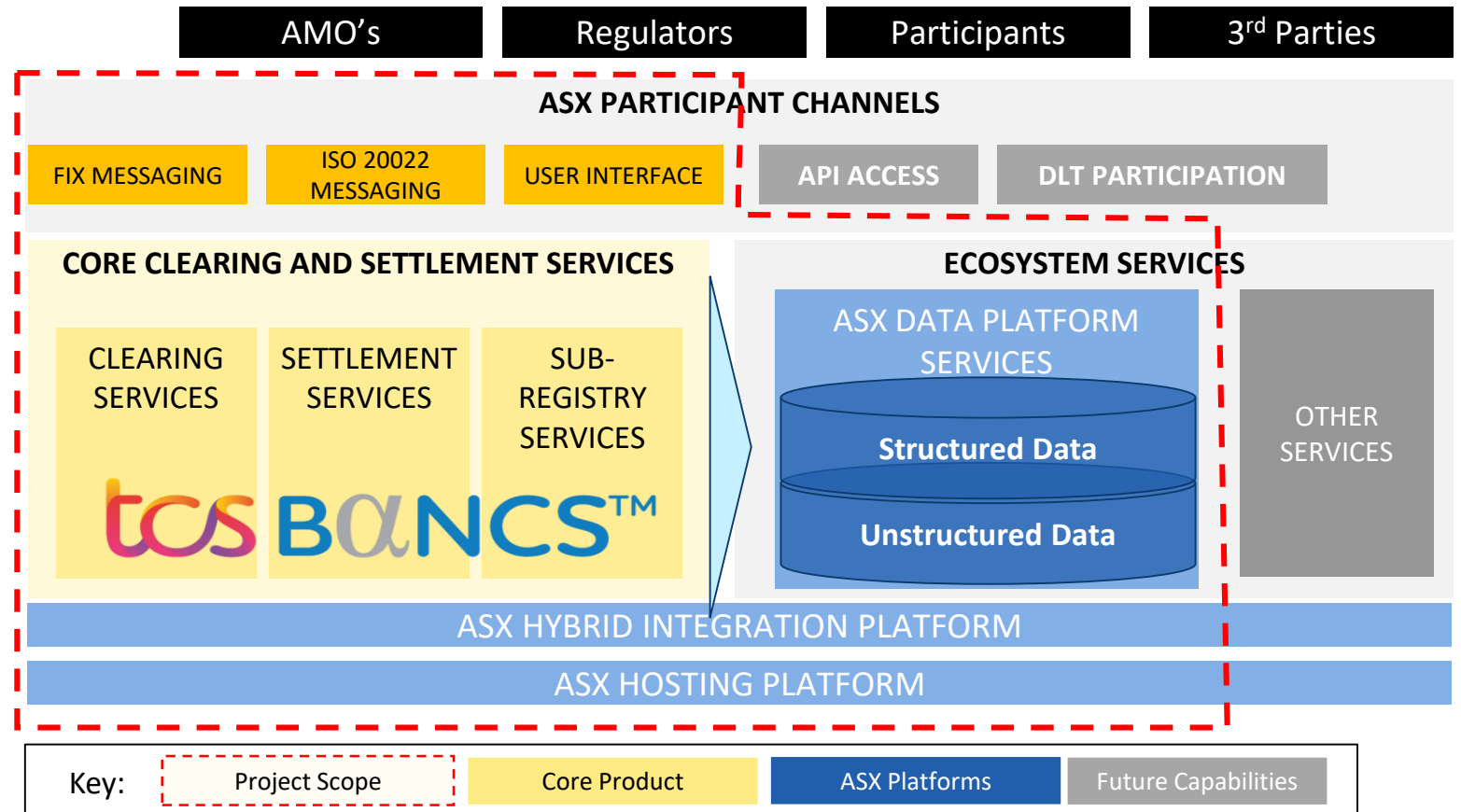
Starting from legacy CHES codebase and iterating to achieve new capabilities in a phased manner

01 – Technology Solution

TCS BaNCS for Market Infrastructure (TCS BaNCS MI)



- > TCS BaNCS for MI is a product focused on the industry critical operations of CCPs, CSDs, central payments infrastructures, central banks and other regulatory bodies.
- > The product is built on micro services and is componentised for the needs of these types of organisations.
- > Support for messages using ISO20022, FIX, combined with support for proprietary interfaces provides the necessary STP capabilities to connect to the participants, trading systems, central banks and other internal sub-systems and external systems.
- > Compliant with global standards such as BIS for settlements and CPMI-IOSCO Principles for Financial Market Infrastructure
- > Continuously benchmarked against evolving industry standards.





02 – Solution Design

Solution Design & Benefits

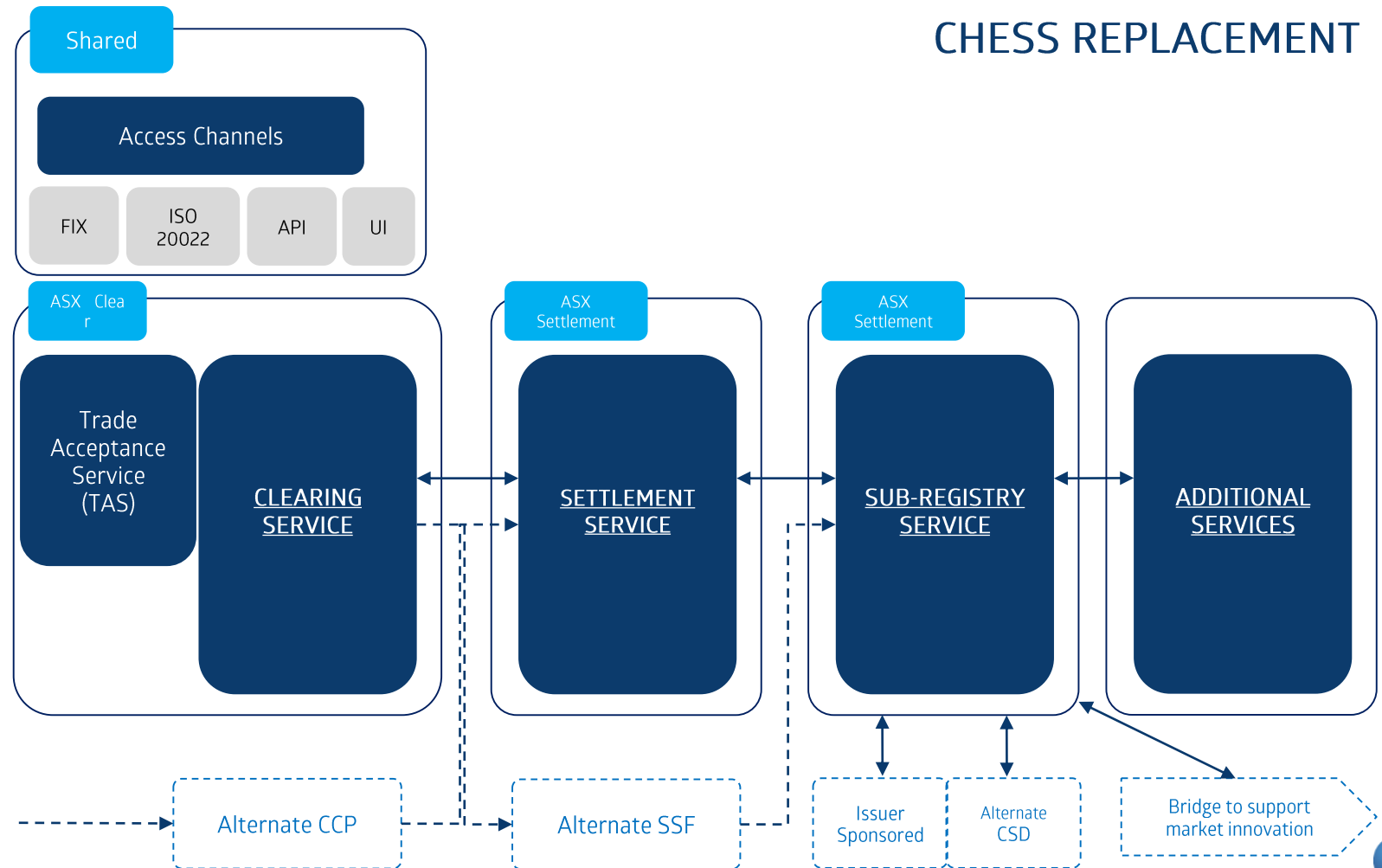
02 – Key Benefits of the Solution Design

Modernising critical market infrastructure

Modern systems are modular in design, providing greater efficiency to deliver enhancements and manage change

Key Design Benefits

- Interoperable
- Standards Based Interfaces
- Modular Architecture
- Resilient and Proven

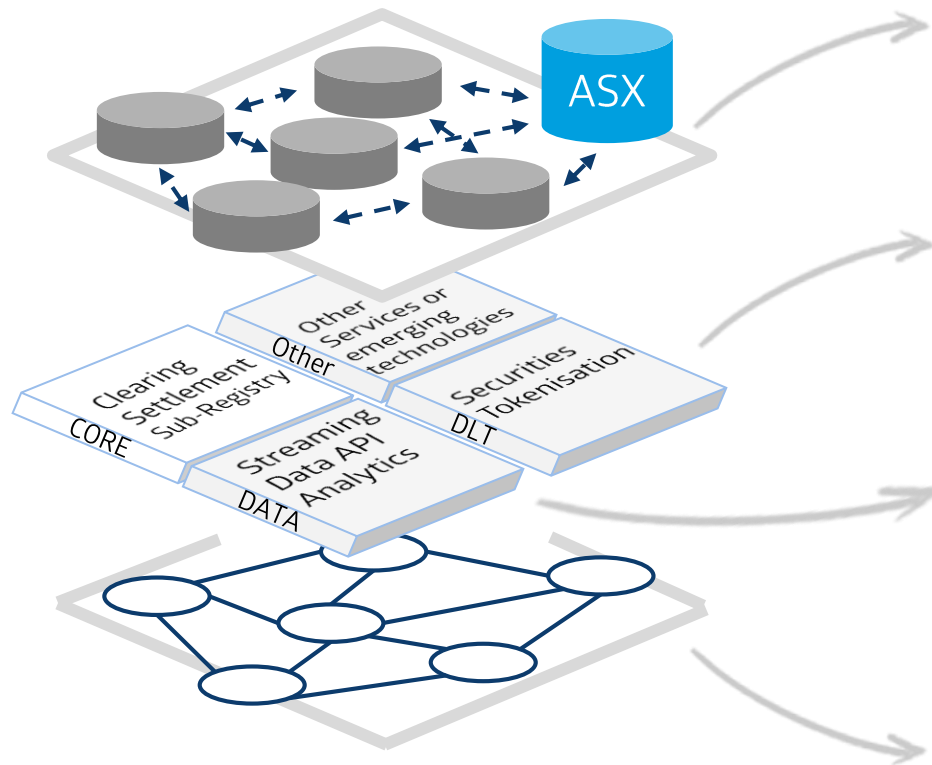


02 – Enabling a modern market infrastructure

Open, modular and scalable architecture to enable future opportunities driven by market demand

Innovation 'Ecosystem'

Enable the industry to build market services on top of ASX's infrastructure



Establish a platform of distinct and accessible business capabilities

Provide services that drive further market efficiencies

Enable DLT extensibility for market use cases

Establish a data-distribution model to consume/instruct activities

Develop an open infrastructure that enables a market ecosystem



03 – Industry Impact

Impact and Benefits

03 – Reducing the impact to industry

Through an established product, strategic delivery partners and staged implementation

ASX expects that a combination of three key factors will enable it to deliver a post trade system that can manage both the volume and complexity of the market, and deliver key industry benefits

Selection of an Established Product

- A global leading product that has a strong operational track record across multiple markets around the world
- Proven scalability to handle 100% headroom on peak Australian market trade volumes
- Inherent capability to transition to T+1

Additional Delivery Support

- Solution Integrator Accenture has been contracted to provide additional support for the implementation and delivery
- Accenture will support ASX's existing project delivery, architecture, testing and capital market expertise
- Also provide scalable resources if required

Staged Implementation

- Plan supports staged implementation, backwards compatibility during the first phase of the project and resource optimisation – subject to consultation
- Other than AMOs, CHES users and market participants should be largely unaffected by the change required in Release 1 and will continue to interface with CHES
- Provides industry the time to slowly increase requisite project delivery resource requirements during the planned market consultation for 2024

03 – Reducing industry impact through a staged implementation

ASX is proposing a staged implementation of the solution over two main releases

Release 1 – Clearing

- Migrate AMOs to the FIX interface
- Migrate trade registration to the new clearing component of the solution
- Implement the technical infrastructure for the strategic solution
- Provide backwards compatibility to minimise impact on the market

Release 2 – Settlement & Sub-register

- Implementation of the full solution including all remaining clearing functionality
- Implementation of the full settlement and sub register functionality, including enhancements added through consultation
- Take into account T+1 and other macro factors

03 – CHES replacement

Industry Benefits



Improved scalability

- > Maintain high operational and resilience standards, while providing improved scalability and the ability to support future market growth as required
- > Key selection criteria was to meet an initial minimum daily trade registration volume of twice projected volume stress levels (currently 15 million trades)
- > Can scale further as market grows



Interoperability

- > Allows access to individual clearing, settlement and sub-register components of the new system, using standardised interfaces
- > Can support potential for future services to be introduced by ASX and other providers
- > Design enables clear segregation at the business capability level of clearing, settlement, sub-register and non-clearing and settlement functionality
- > Defines interfaces between clearing, settlement and sub-register, including designs that support third party access channels



Re-use of industry investments

- > The significant industry effort relating to workflow development and global messaging standards is expected to remain largely relevant for potential reuse
- > Likely to include the ISO 20022 standard, the message schemas, data formats, and workflows previously developed – supported by TCS BaNCS for MI Product and by the industry and can be retained in the new system
- > This remains subject to consultation on scope and detailed design



Innovation & Growth opportunities

- > The solution can provide for connectivity with alternate technologies, including DLT and other emerging technologies
- > Support future innovation by creating opportunities for new services to be introduced by ASX or other providers, as driven by market demand
- > The architecture supports innovation and opportunities for future market driven services and enhancements

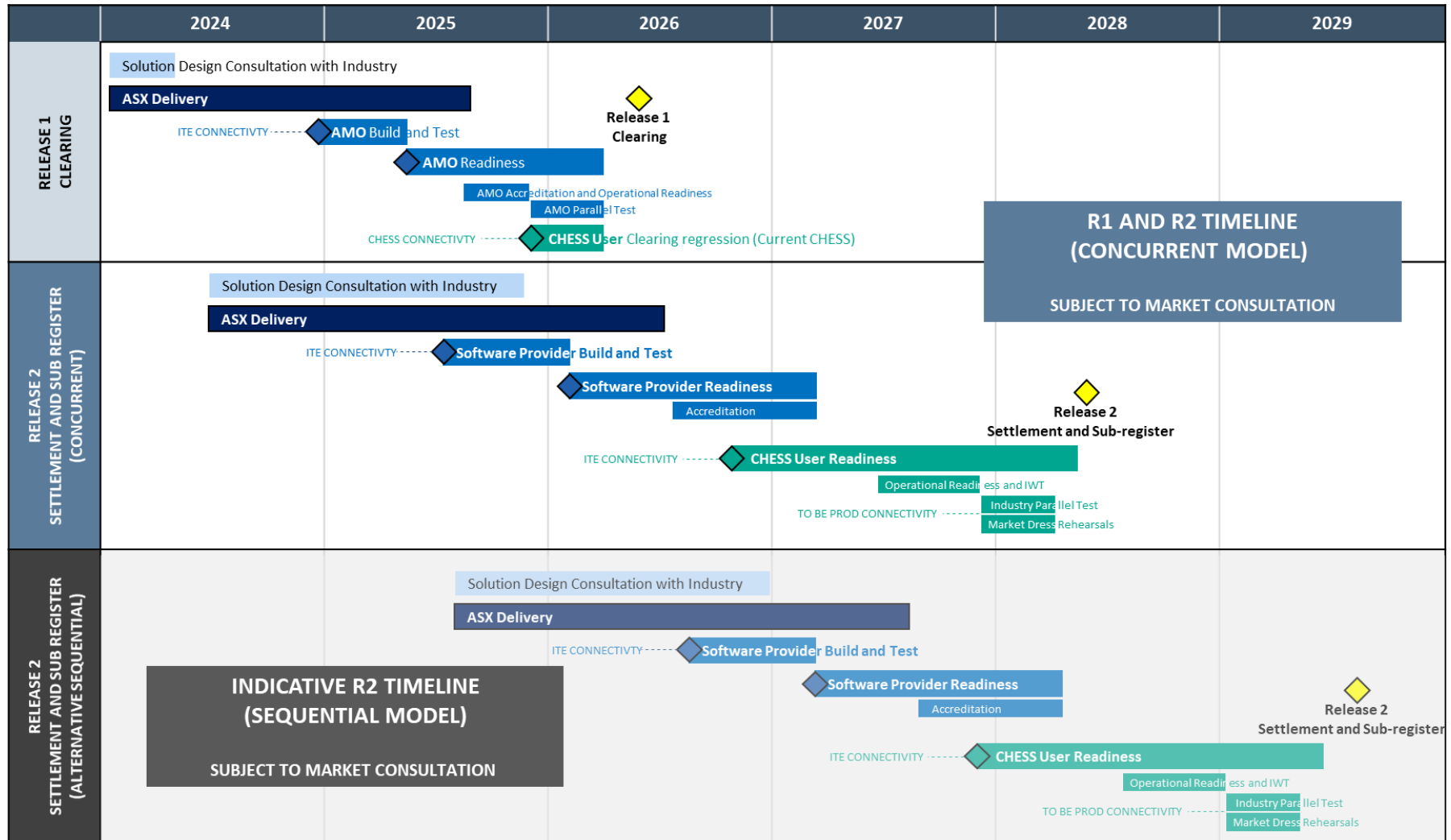


04 – Project Timeline

Timeline & Industry Consultation

04 – Indicative Project Timeline

High level overview of the proposed timeline, subject to industry consultation

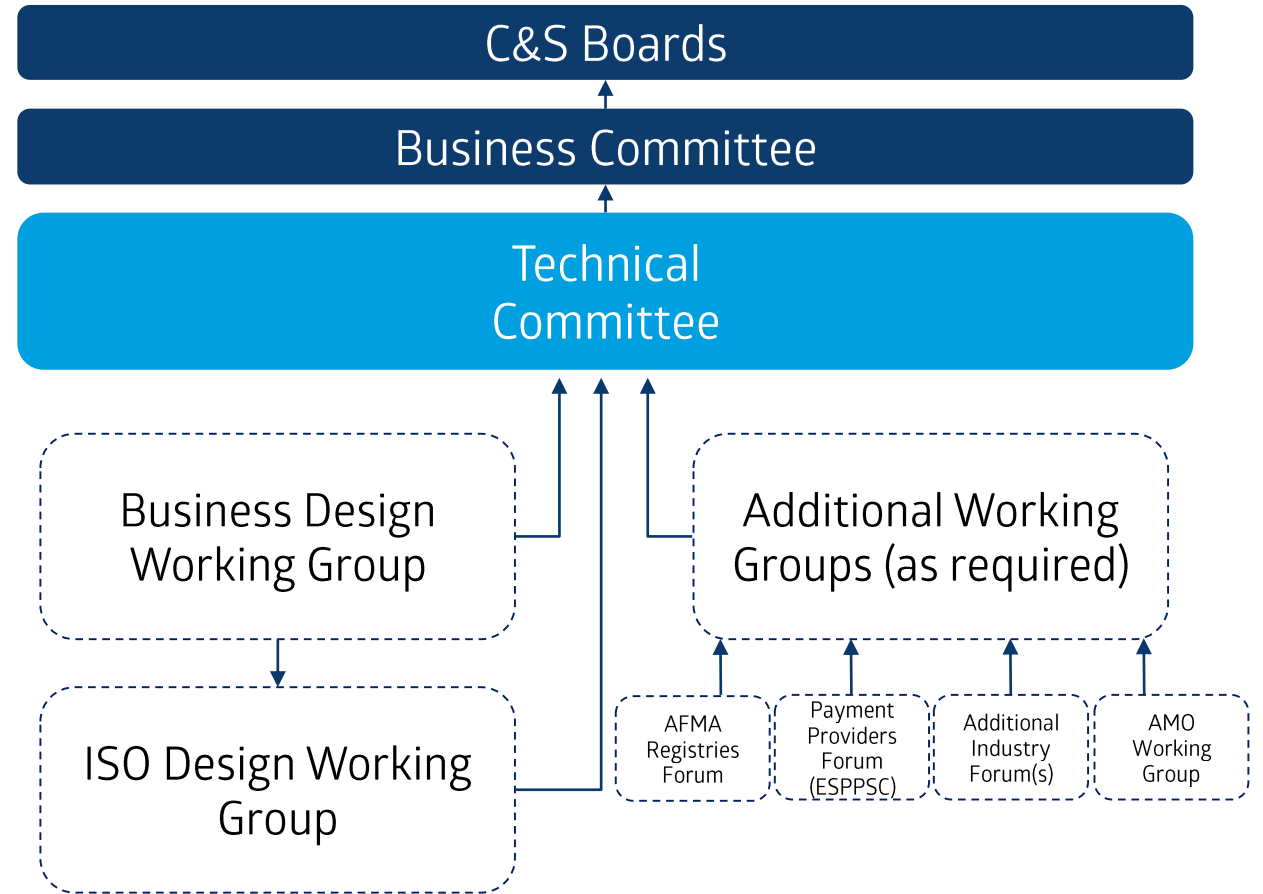


04 – Stakeholder Engagement

Moving forward

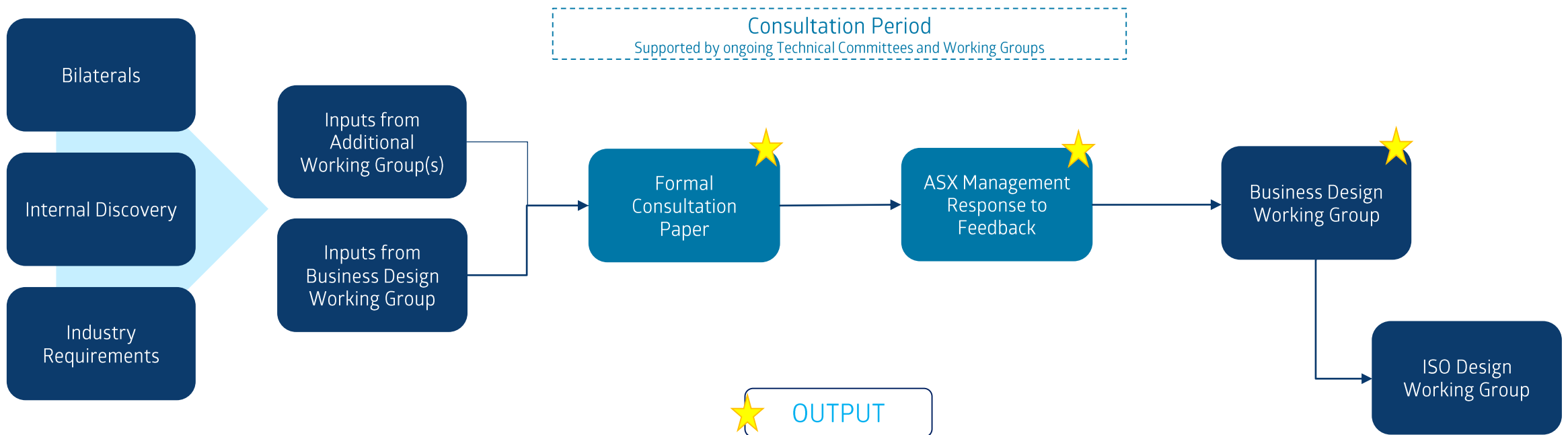
ASX proposes the following operating model to support necessary industry engagement:

- Business Design Working Group (BDWG)
 - Responsible for the functional design of any new/changing scope
 - Includes Business and Operational SMEs from relevant organisations
- ISO Design Working Group (IDWG)
 - Responsible for the ISO20022 message designs and flows
 - Will be consulted on all messages
 - Includes Technical SMEs from relevant organisations
- Additional Working Groups
 - Members and responsibilities as required



04 – Stakeholder Engagement

Public Consultation Model



Once the design consultation is progressed, ASX will also consult on amendments to its Operating Rules.

04 – Stakeholder Engagement

Industry Consultation Topics

ASX will consult with the industry on:

Release 1 – Clearing

- Business scope items and their business design
- Demonstration of and consultation on, how the vendor solution fits to deliver the market objectives for Release 1
- Market impacts and backward compatibility safeguarding impacts to all market participants other than AMOs
- How technical enablement aimed for R1 de-risks R2 implementation and delivers towards the target solution
- Industry testing approach, cutover & migration approach and delivery timeline

Release 2 – Settlement & Sub-register

- Business scope items and their business design
- Demonstration of and consultation on, how the vendor solution fits to deliver the market objectives for Release 2
- Market impacts and activities required by market participants and software providers
- Industry testing approach, cutover & migration approach and delivery timeline
- Opportunities to mitigate risks further through various testing options (e.g. industry parallel testing)

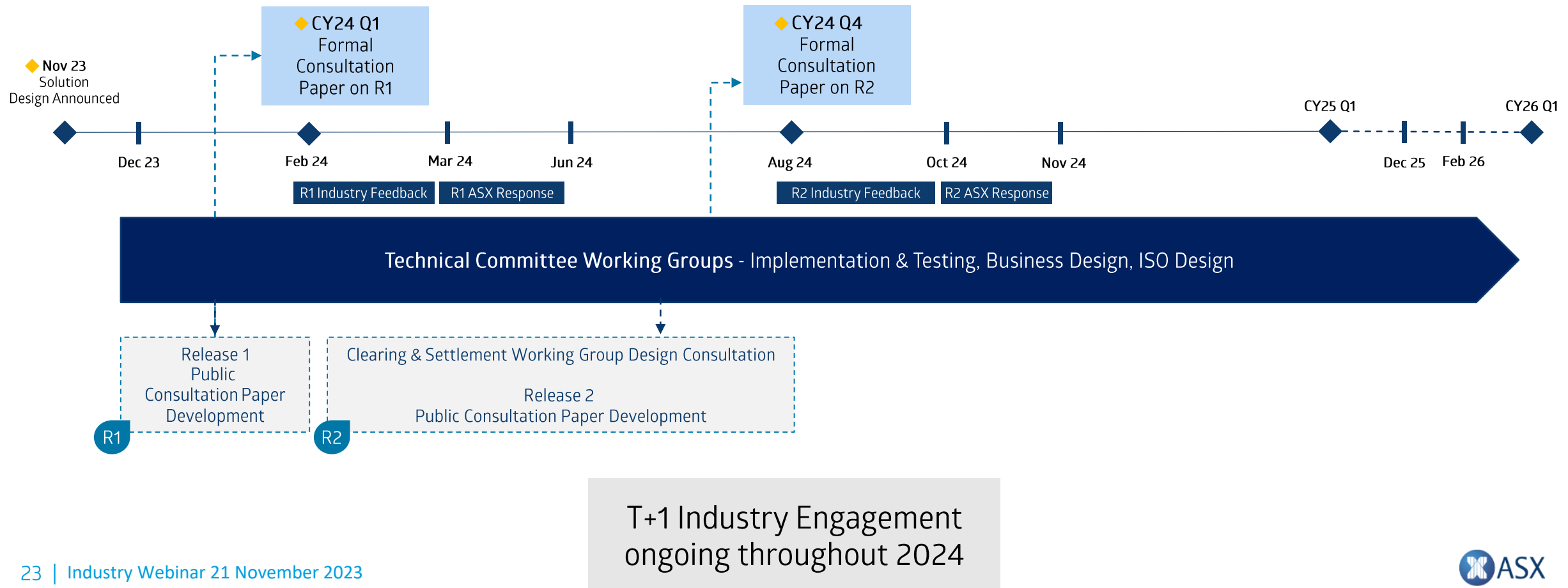
Macro Industry Factors

- Industry progress on T+1 or other macro industry factors

04 – Stakeholder Engagement

Planned Public Consultation Timeline summary

Formal consultation with stakeholders will commence in the first quarter of 2024 and cover the high-level project plan and an indicative timeline for the releases, including the design, scope, and timing for each of the releases. Once the design consultation is progressed, ASX will consult on amendments to its Operating Rules.

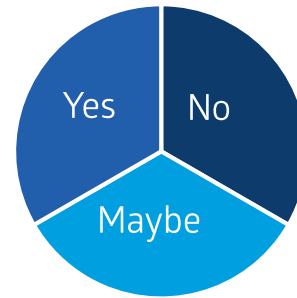


04 – T+1 Settlement Compression

Update to ASX

Global moves to T+1

	Live January 2023
	Target go live May 2024
	Consultation, report in 2024
	Recommendations by Dec 2024

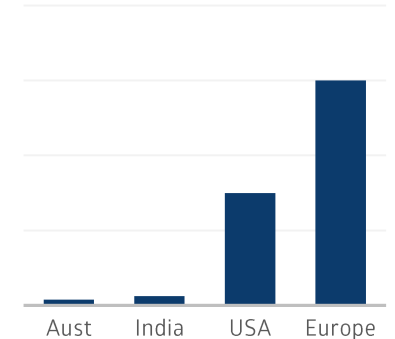


Early consultation has commenced, market has mixed views

Australian status



T+1 working group convening Dec 2023



Australia has some of the lowest settlement fail rates

Potential benefits

- Reduced Market Risk
- Enhanced Liquidity
- Increased Efficiency
- Reduced Credit Risk
- Alignment with Global Standards and timing
- Opportunities for Technological Advancement

Australian approach

- Discussion paper (H1 2024)
- Stakeholder engagement
- Regulatory engagement
- Australian market “Business Case”
- Technology capability
- Timing and implementation

Australian specific issues

- Australia is already T+1.5
- Consider Australia’s timezone
- Global capital flows and FX
- Securities Lending
- Settlement fail rates
- CHES replacement sequencing
- Co-ordination with NZX



05 - Project Delivery Partners

TCS BaNCS & Accenture

05 - ASX is also partnering with Accenture

Accenture is a global leading solution integrator



Accenture has strong capabilities to support the delivery of the CHES replacement project, including:

> ***Delivery capability***

Accenture is globally recognised as a high-quality systems integrator with a high degree of capital markets integration expertise and experience in delivering large and complex technology programs. Accenture employs over 2000 capital markets professionals who service over 450 capital markets globally. Accenture's delivery model includes onshore, nearshore, and offshore resources.

> ***Testing capability***

Accenture is considered one of the top global quality engineering practices across all industries, utilising market leading technology and best practices to enhance testing processes, to optimise testing efforts and seek to achieve faster time-to-market, as well as improved product quality.

> ***Key capital market infrastructure experience***

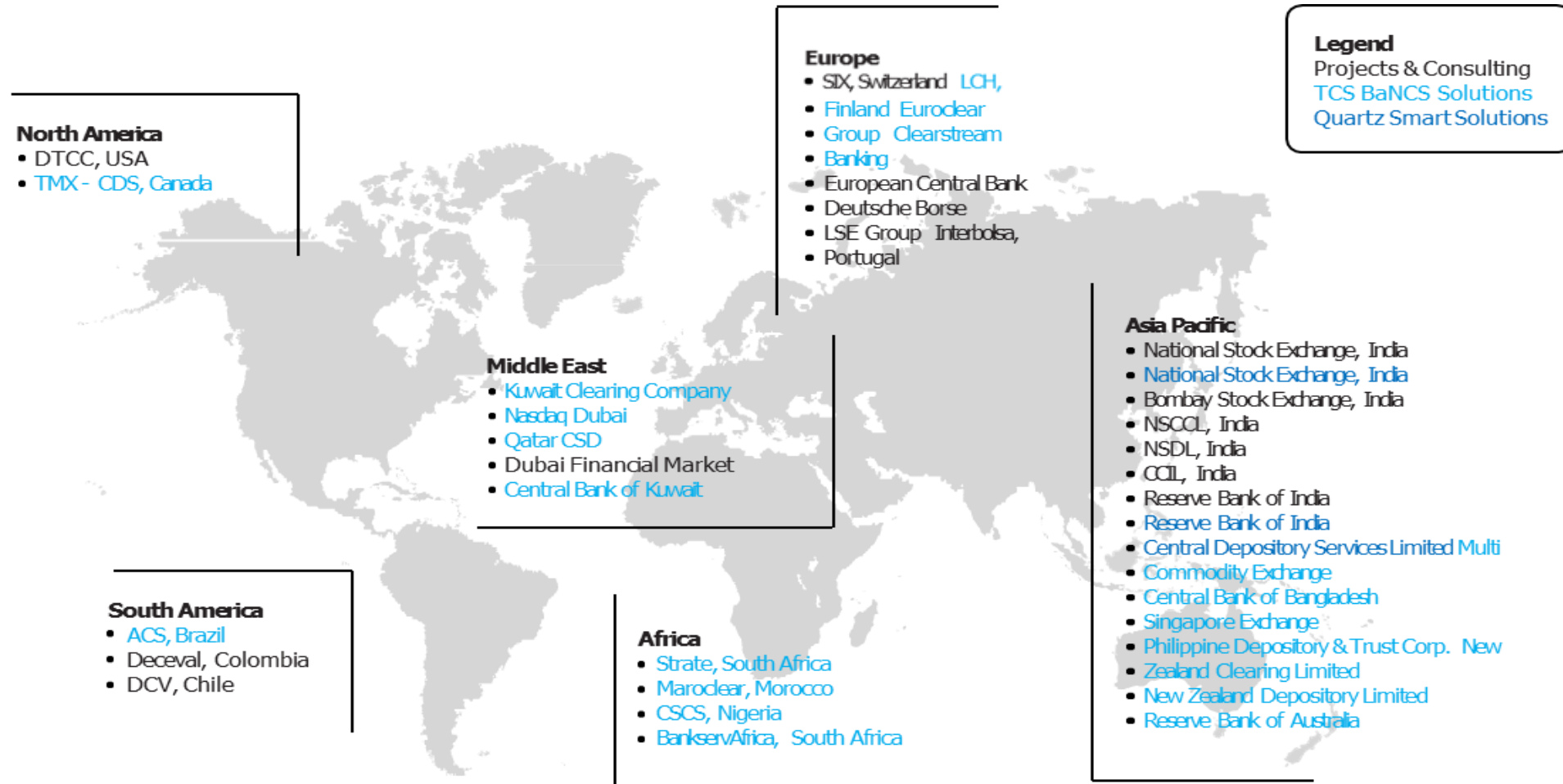
- Appointed by the Bank of England as the Technology Delivery Partner for the Real Time Gross Settlement Service Renewal Program.
- Partnered with the DTCC to design and build a prototype to settle tokenized securities.
- Partnered with a leading European exchange to managed part of their markets technology stack.
- Partnered with a leading US investment bank to reimagine the settlement process.
- Accenture is also a capital markets infrastructure participant providing a "Settlements as a Service" platform in Europe for middle and back-office processes for capital markets clients.

05 – Global Footprint

TCS is the largest Exchange neutral, independent software vendor in the Market Infrastructure space



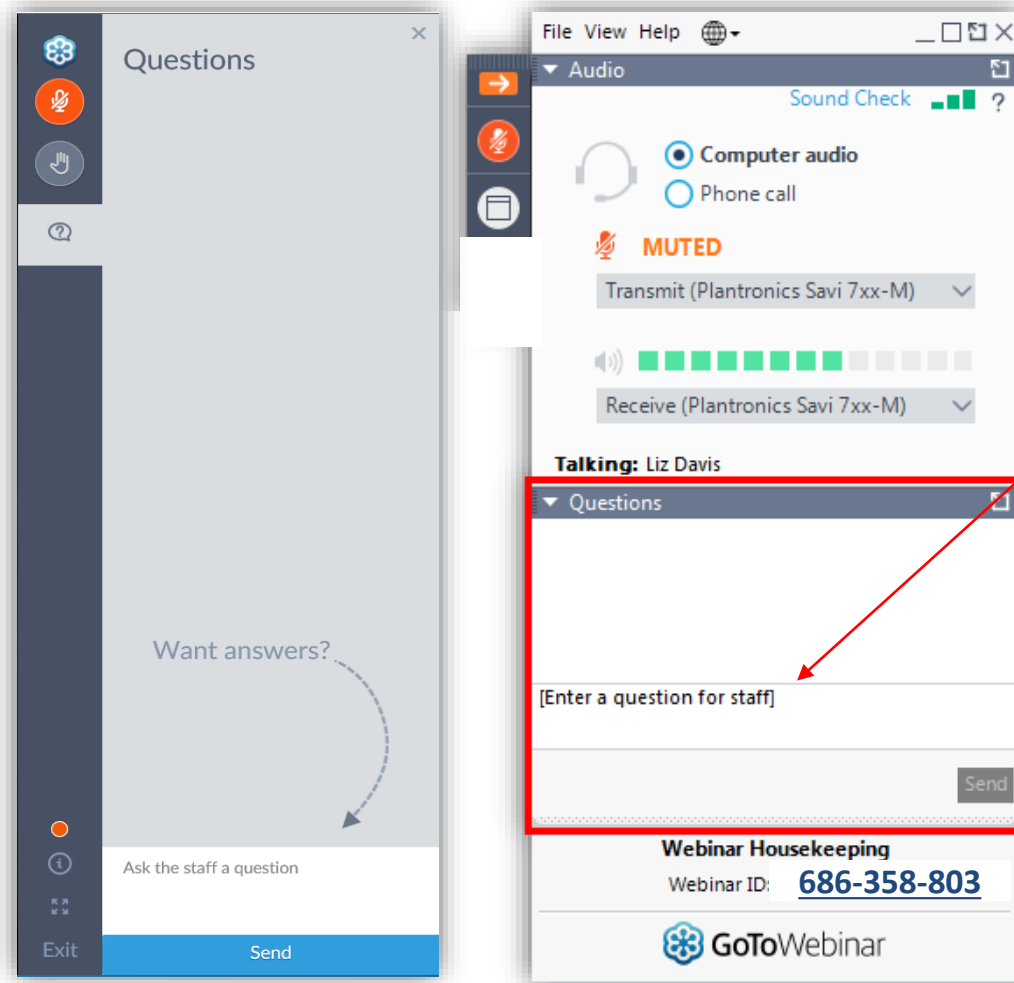
- > TATA Consultancy Services Limited (TCS) is an IT services, consulting and business solutions organisation that has been partnering with many of the world's largest businesses in their transformation journeys for over 55 years.
- > TCS has rich experience working with Market Infrastructure organisations and the chosen product has been implemented in critical transformation programs across the globe.
- > TCS has been operating in the Australian and New Zealand markets for more than 30 years and has local headcount of more than 5,000 associates (Global employee strength ~615,000).



06 – Q&A

Question & Answer

How to submit questions



Your Participation

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Thank you.



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