

FIX Trading Community



ISO 101 & It's relationship to TC68 & the FIX Trading Community





Why is FIX involved in ISO?



Why ISO?

- Increasingly global regulators and sovereignties are requiring ISO
 - FSB and CPMI/IOSCO
 - China
 - EU: ESMA, ECB
- FIX brings a consumer voice to these standards
 - Looking out for interests of buy-sides, sell-sides, and venues
- Raises the visibility of FIX globally
- Provides a level of branding and permanence that protects the FIX standard
- Establish FIX as a source of technical and business expertise

Working Group	Standard	Person
ISO TC 68/SC 8/WG 3	ISO 24165-1 Digital Token Identifier	Ryan Pierce
ISO TC 68/SC 8/WG 9	ISO 5009 Official Organizational Roles	Meredith Gibson
ISO TC 68/SC 9/WG 1	Semantics for ISO 20022	Don Mendelson



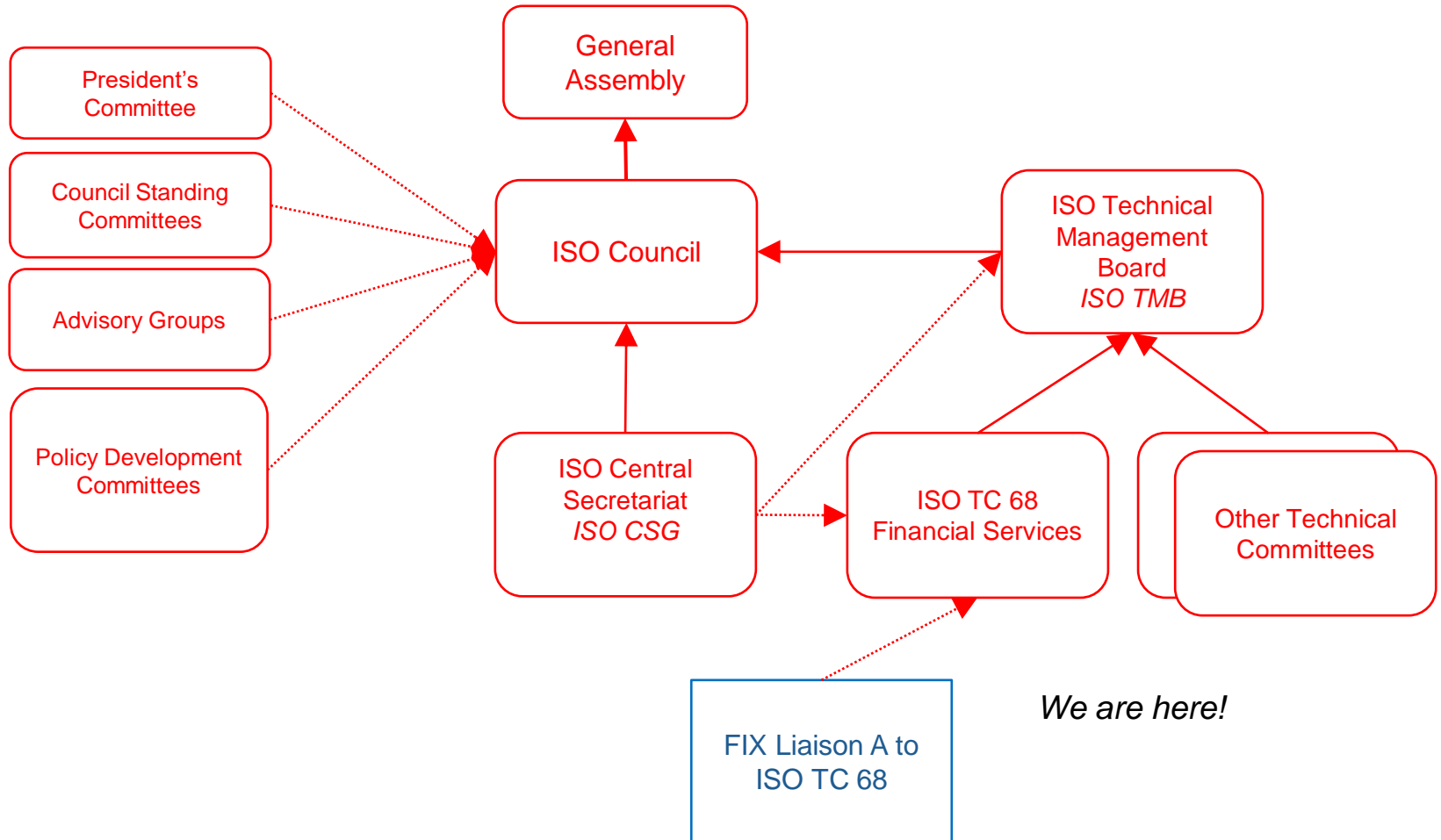
ISO has been around for ages, but
tell us a bit about the history of the
organisation



The history of ISO

- ISO – International Standards Organisation (but actually stands for ISOS meaning Equal)
- Set up in its current form after the 2nd world war to rebuild the world around common standards (23rd February 1947).
- A standard is defined as a “specification that establishes a common language, and contains a technical specification or other precise criteria and is designed to be used consistently, as a rule, a guideline, or a definition”
- Provides standards for everything from the size of shipping containers (ISO 6346) to how to define a currency (ISO 4217) and everything in between
- Every country is open to participate (although not mandatory) and countries are usually represented through a national standards organisation to e.g. American National Standards Institute (ANSI) and the British Standards Institute (BSI)
- Each standard has a different country to act as the committee managers and they are expected to provide the workforce to support the standard.
- There are over 300 Technical Committees within the ISO framework

ISO Governance Structure





What are the different types of organisations involved in ISO



Who's Who in ISO

- **Secretariat** – the lead ISO member country for each Technical Committee or Sub Committee
- **Committee Chair** – A individual elected by the secretariat country to run the committee
- **Committee Manager** (previously secretary) – the individual employed by the secretariat country to provide committee support to the chair.
- **'P' Participating Country** – National member bodies with full participation and voting rights
- **'O' Observing Country** – National member bodies that can participate, but have no voting rights
- **Liaison organisation** - and organisation with expertise who participate in the efforts of the committee – usually they are from organisations who represent the consumers of the standards They do not have any voting rights.
 - **The FIX Trading Community is a Liaison "A" organisation to TC68, TC68/SC 8 and TC68/SC 9**
- **Advisory Group** – A group to advise a committee or sub committee on either a short term or long term basis
- **Study Group** – A group organized to provide a specific analysis and recommendations for a committee or sub committee
- **Convenor** – Leads an advisory or working group towards consensus
- **RA Registration authority** – Authority responsible for issuance (e.g. ISIN (ISO 6166), MIC (ISO 10383), LEI (IS 17442)) – expectation of cost neutral model. The Registration Authorities are mandated by the standard but not part of it
- **MA Maintenance Agency** – A group composed of national member bodies and liaison organisations that oversee and support standards that require some form of maintenance (such as the ISO 4217 Currency Code standard).
- **IST/12** – The committee within the British Standards Institute (BSI) responsible for financial services standards and representing the UK within ISO TC 68.
- **X9** - the standards committee for all Financial Services standards within the US that is accredited by ANSI to represent the US as the secretariat for ISO TC68. X9 is roughly equivalent to the IST/12 committee of the British Standards Institute.



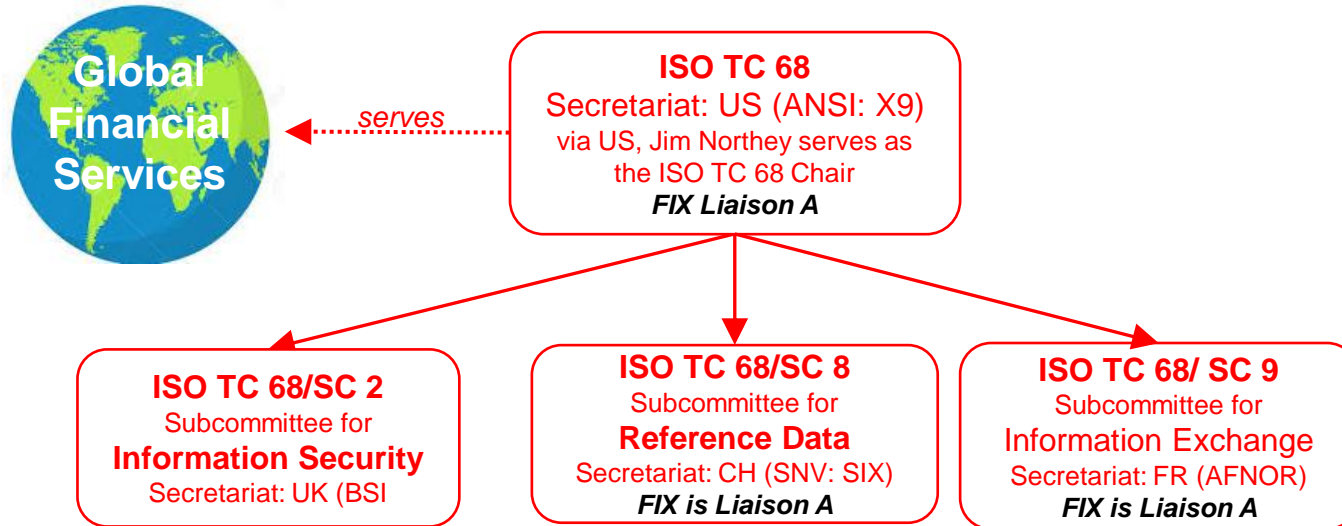
So what is TC 68?



ISO TC 68 – ISO Technical Committee for Financial Services

- Established in 1972
- Covers all of financial services: Core banking, payments, trade services, financial markets
- Countries are referred to as National Member Bodies within ISO
- Countries can choose their level of membership
 - Participating – responsibilities
 - Attendance
 - Reporting
 - Voting
 - Observing
 - May attend meetings
 - Ineligible to vote at the committee/subcommittee level
 - Fees for participation
- ISO Committees and Subcommittees may have Liaison members
 - Ineligible to vote at the committee/subcommittee level
 - May name experts to advisory groups, study groups, and working groups
- Technical Committees may form subcommittees
 - TC 68 reorganized in 2017 into three subcommittees
- The ISO TC 68 parent committee by choice does not house standards
 - ISO TC 68 chose to move all standards into its subcommittees
 - Actual standards are developed by working groups created within the subcommittees
- ISO TC 68 acts as a service organization providing coordination and communication across its subcommittees.
 - This is accomplished by a combination of standing and ad hoc *advisory groups* and *study groups*.

ISO TC 68 Structure

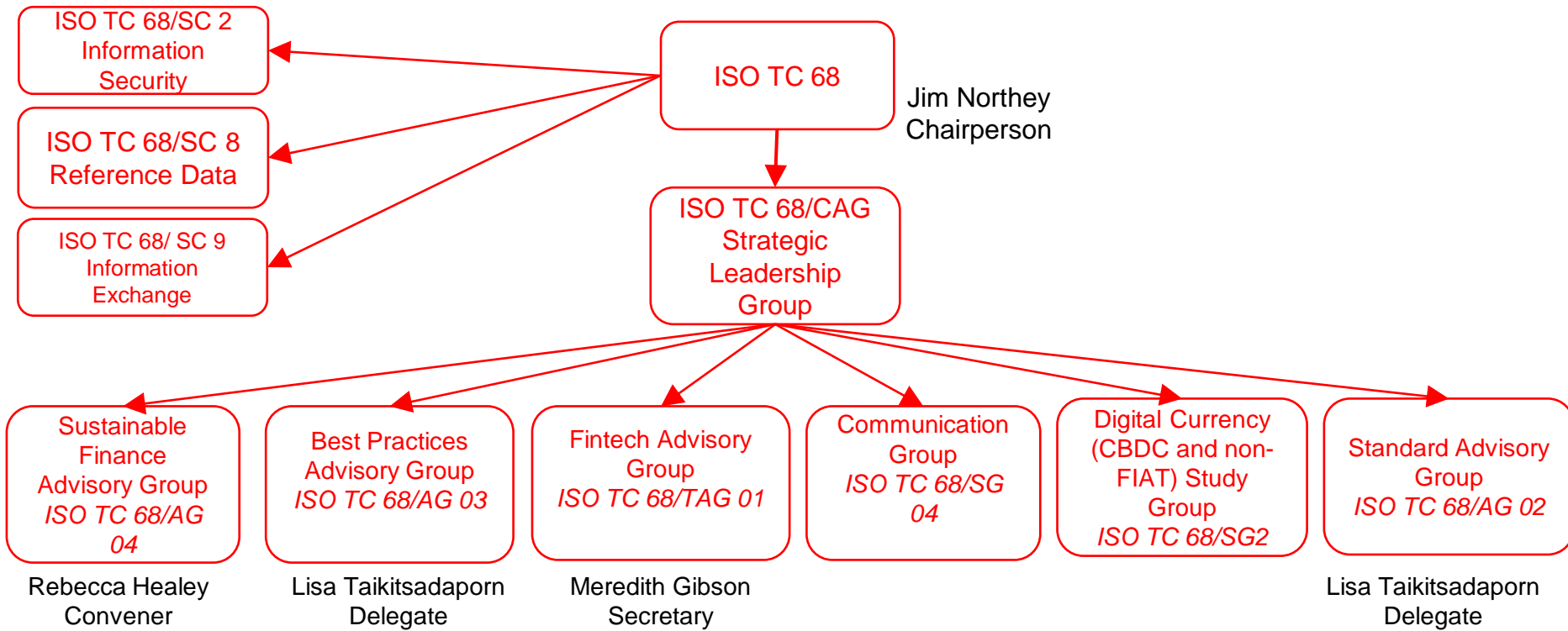


- Subcommittees are independent of the Technical committee unless an issue requires escalation for resolution.
- Each subcommittee has a work program with clearly defined action and decision stages (which are standardised across ISO), Preliminary, Proposal, Preparatory, Committee, Enquiry, Approval, Publication (with additional stages if necessary – review and withdrawal).
- First proposal to final publication for a full standards can take about 3 years.
- A fast track process has been introduced for established standards which is the process being used for FIX standards



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- FIX Protocol has three standards undergoing approval within ISO TC 68/SC9 as ISO 3531
 - Part 1:FIX session layer – TagValue encoding
 - Part 2:FIX Session Layer
 - Part 3:FIX Session layer test cases
 - Planned
 - Simple Binary Encoding
 - FIXS – FIX over TLS
 - FIX Application layer via ISO 20022

ISO TC 68 acts as a service body to its subcommittees



FIX Leadership roles within TC 68 are highlighted



So what is ISO 20022 and why is it of interest to the FIX Trading Community?

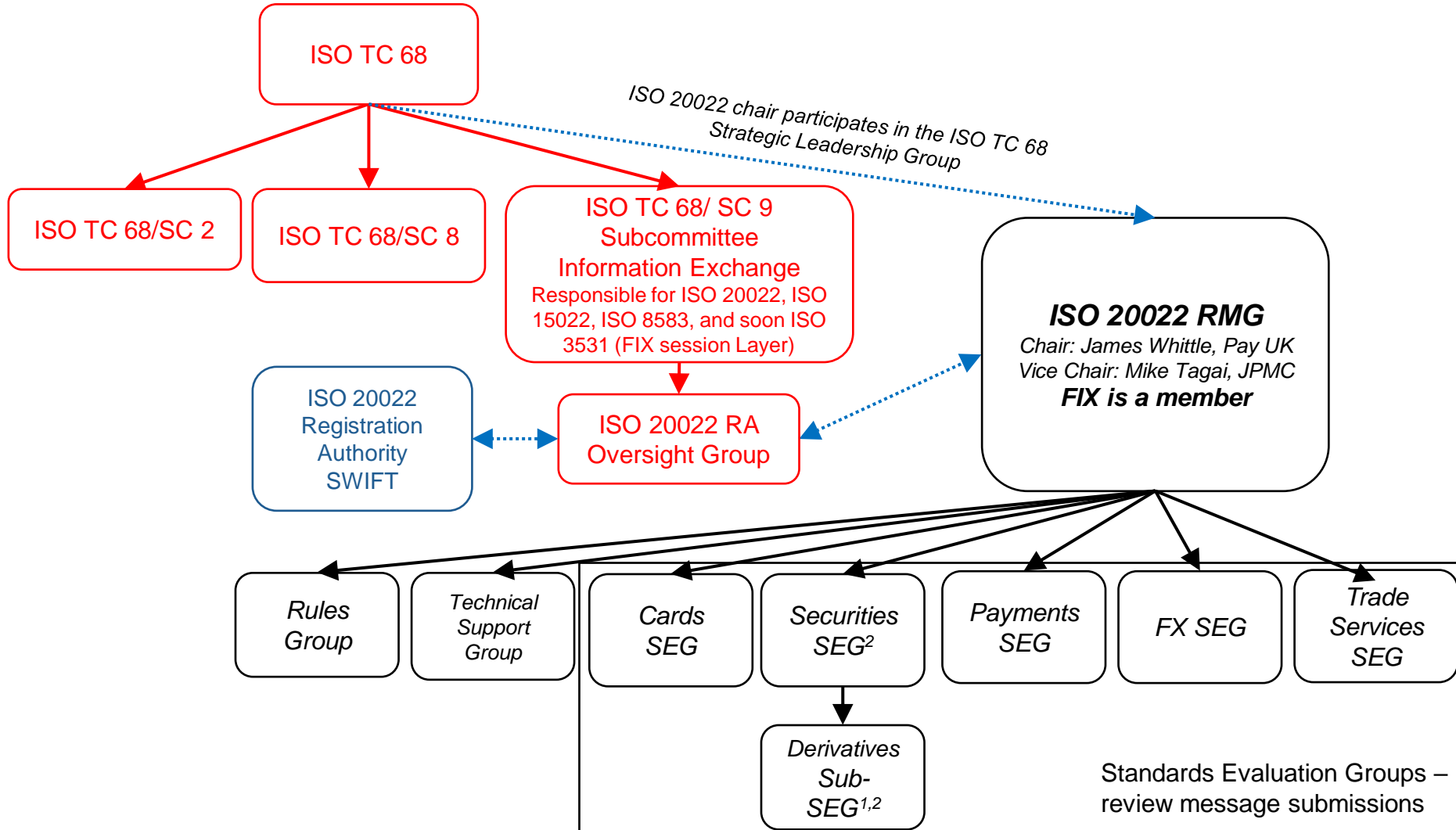


ISO 20022 – Financial Data Interchange

- Created in 2004 within the ISO TC68 committee
- The ISO 20022 standard is now within ISO TC68/SC9 the subcommittee for Information Exchange
- ISO 20022 – is the ISO standard for electronic data interchange between financial institutions
 - Business Model (which includes financial instrument data model)
 - Logical Model
 - Message Model
 - Originally included a governance process which created a Registration Management Group (RMG)
- It encompasses all standards required to operate financial markets and includes standards such as settlement, custody, corporate actions, shareholder identification, payments, card processing, trade services, regulatory reporting.
- ISO 20022 is a Registration Authority Standard (RA Standard)
 - SWIFT is the Registration Authority for the ISO 20022 and ISO 15022 standards
- The ISO 20022 Registration Management Group (RMG) is an organization that sits outside and along side of ISO.
- It was preceded by the still widely used standards:
 - ISO 15022 (payments and securities processing) often referred to colloquially as SWIFT messaging,
 - ISO 8583 (credit card processing).
- There is an agreement that FIX would be the standard that would eventually fulfil the ISO 20022 requirement pre-trade through post-trade for listed financial securities
 - This effort has been ongoing off and on (mostly off) since 2005
 - Considerable activity 2007-2009 time frame
 - Recent activity 2015- in terms of defining a semantic representation for ISO 20022 as a method to incorporate the FIX application messages
- Global regulators have expressed a strong bias toward adoption of ISO standards in general and specifically in ISO 2002



ISO 2002 within ISO TC 68



¹Kathleen Callahan is the secretary of the Derivatives Sub-SEG.

²Lisa Taikitsadaporn represents FIX as a member of the Securities SEG and the Derivatives Sub-SEG



What ISO standards are supported within FIX standards?

ISO Standards Adopted and Promoted by FIX

- ISO TC68

- ISO 4217:2015
 - Currency
- ISO 10962:2015 CFI
 - Classification of Financial Instruments



- **ISO 6166:2013 ISIN**
 - **Financial Instrument Identifier**
- ISO 18774:2015 FISN
 - Financial Instrument Short Name



- ISO 10383:2012 MIC
 - Market Identifier Codes
- ISO 9362:2014 BIC
 - Business Identifier Codes



- **ISO 17442:2012 LEI**
 - **Legal Entity Identifier**
- **ISO 20275: 2017 ELF**
 - **Entity Legal Form**
- **ISO 5009: 2021**
 - **Official Organization Roles**



- Other ISO Standards

- ISO 8601:2004
 - Time and Date
- ISO 3166-1:2013
 - Country Codes
- ISO 8825-*:2015
 - ASN.1
- ISO 15836:2009
 - Dublin Core
- ISO/IEC 11404:2007
 - General-Purpose Datatypes



What are the different ISO Groups
and how do they interact and what
is the role that FIX plays in TC68?



ISO and National Standards Involvement

ISO/National Committee	Description / Work Item	Person	Role	Status
ISO TC 68	Technical Committee for Financial Services	Jim Northey Lisa Taikitsadaporn	Chair (2019-2021)	US requested 2 nd term (2022-2024)
ISO TC 68/SC 2	Information Security			
ISO TC 68/SC 8	Reference Data	Lisa Taikitsadaporn Meredith Gibson		Ongoing
ISO TC 68/SC 9	Information Exchange	Lisa Taikitsadaporn		Ongoing
ISO 20022 RMG		Lisa Taikitsadaporn Jim Northey		Ongoing
ISO 20022 Securities SEG		Lisa Taikitsadaporn		Ongoing
ISO 20022 Derivatives SEG		Lisa Taikitsadaporn Kathleen Callahan	Secretary	Ongoing
ISO TC 68/SC 8/WG 1	ISO 10962 Classification of Financial Instruments Revision	Jim Northey Lisa Taikitsadaporn	Secretary	Being Balloted
ISO TC 68/SC 8/WG 3	ISO 24165-1, -2 Digital Token Identifier	Sean Ristau Ryan Pierce		Being Balloted
ISO TC 68/SC 8/WG 6	ISO 6166 ISIN Revision	Lisa Taikitsadaporn		Post Ballot Comment Disposal
ISO TC 68/SC 8/WG 8	ISO 4914 Unique Product Identifier	Meredith Gibson Lisa Taikitsadaporn		Being Balloted
ISO TC 68/SC 8/WG 9	ISO 5009 Official Organizational Role	Meredith Gibson		Drafting



ISO and National Standards Involvement

ISO/National Committee	Description / Work Item	Person	Role	Status
ISO TC 68/SC 9/WG 1	Semantics for ISO 20022	Lisa Taikitsadaporn Kathleen Callahan Don Mendelson Jim Northey	Convenor Secretary	Completing initial reports
ISO TC 68/TAG 1	FINTECH Advisory Group	Meredith Gibson Don Mendelson Lisa Taikitsadaporn	Secretary	Ongoing
ISO TC 68/SG 4	Communications Group for all of TC 68 and its subcommittees (marketing, promotions, education)	Jim Northey		Ongoing
ISO TC 68/AG 3	Standards Best Practices (consistency in the creation and maintenance of TC 68 standards)	Lisa Taikitsadaporn		Ongoing
ISO TC 68/AG 2	Standards Advisory Group (regulatory outreach and engagement)			
US X9 Board		Jim Northey		Ongoing
US X9D Subcommittee	Securities Processing	Lisa Taikitsadaporn Jim Northey		Ongoing
US X9 Executive Committee		Jim Northey		Ongoing
BSI/IST 12	UK representation in ISO TC 68	Meredith Gibson		Ongoing
ANNA/DSB	Product Committee	Lisa Taikitsadaporn		Ongoing
ANNA/DSB	Technical Committee Information Security Subcommittee	Jim Northey		Ongoing
US TAG to ISO TC 322	Sustainable Finance	Rebecca Healey		Ongoing

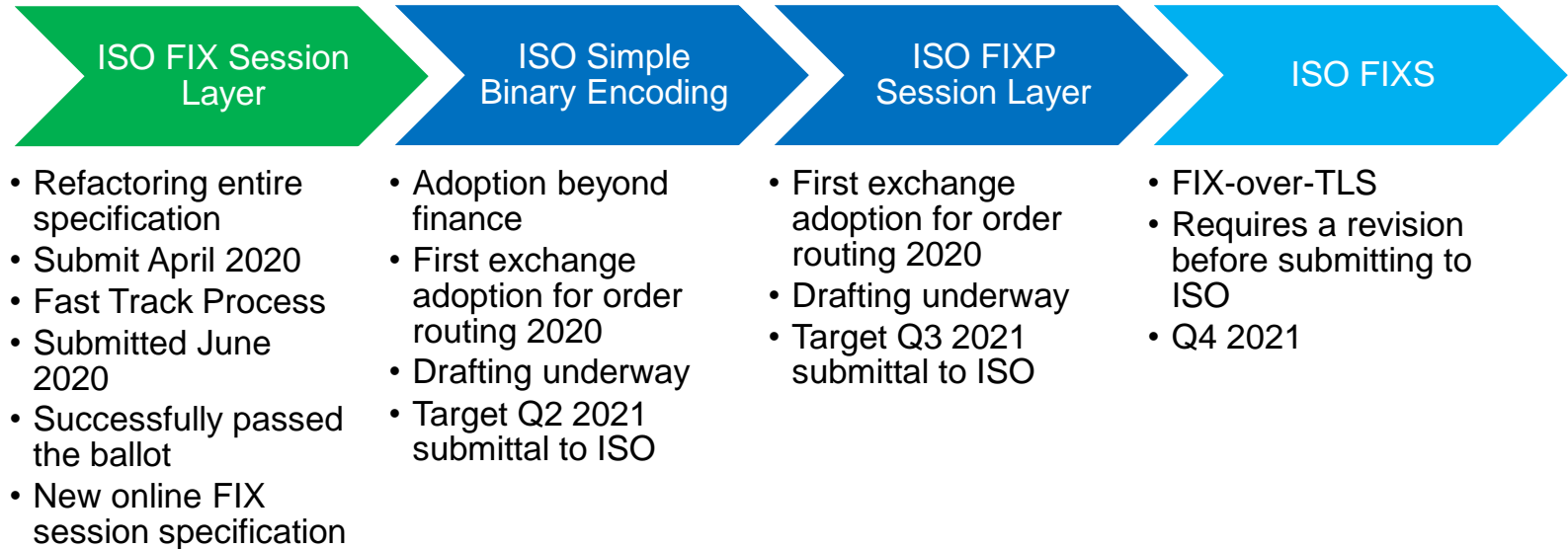


ISO standardization of FIX Technical standards is needed to protect and promote the FIX standards, so what is the plan?



ISO Road map

Important near-term deliveries our key technical standards suite



Application layer is key for business integration and regulatory adoption

FIX Application in ISO 20022

- ISO 20022 likely will need to be revised.
- No time available from the ISO 20022 RA to assist (SWIFT)
- Long term goal



Glossary of ISO Terms

Term	Explanation
TC – Technical Committee	Technical Committee responsible for some aspect of society
SC - Sub Committee	Specialization within technical committee
PC - Project Committee	Project Committee
WG - Working Group	A specialised group within a committee that is responsible for drafting a particular standard or set of deliverables. Usually quite small, composed of experts and headed by a convenor
RA – Registration Authority	Registration Authority who have a registration function e.g. ISIN issuance
P Member	Participating Member who takes part in the work, is obliged to vote and can nominate a WG expert
O Member	Observer member who follows the work but can comment but cannot vote or nominate an expert in a WG
Joint Committee	A committee that combines several organisations along side ISO