New Business Initiatives
Task Force Session 6
Transforming CSD Services Through Innovative Technology

Jean Chong, Securities & FX Markets, SWIFT

March 2019

ISO 20022 for Community and New Technology

New technologies: community and collaborations

ISO 20022 for new technology

Community and Collaborations

Community and Collaborations

SWIFT iab

Facilitating collaboration between IT, business and the market place.
Located in New York, Brussels, London and Hong Kong
Inspiring and encouraging innovation
Sandbox

The SWIFT Institute

A funds independent research institute that supports knowledge-led debate by academics and financial practitioners, on important topics affecting industry and its customers such as technology and innovation

INNO TRIBE

Reinforcing collaborative innovation in financial services
Start-up Challenges, Innotribe@Sibos, Industry Chalenges

HYPERLEDGER PROJECT

SWIFT is a founding member of this open source project aimed at advancing cross-industry blockchain technologies. Hosted by the Linux Foundation.

ISO

SWIFT contributes to various ISO groups including the investigating of how existing messaging and reference data standards can be re-used in a DLT context, driving global interoperability.

ISSA

Under the CSD Working Group on DLT, SWIFT and CSDs signed MOU to work together to demonstrate how DLT can be implemented in post-trade scenarios.

SWIFTgpi

Engaging the community to explore potential used cases in payments
Collaborative PoCs – nostro recon, GPI Link

SWIFT, SLIB, SGX, Deutsche Bank, DBS, Standard Chartered, HSBC

Collaborative PoCs – SWIFT, SLIB, SGX and 4 banks conducting PoC to test a PoC on e-Voting using DLT

CSD Working Group on DLT

ISSA

Projects

Infrastructure for Crypto Assets

Settlement of Crypto-Assets

Safekeeping of Crypto Assets

SWIFT

Standards expertise
Ensure alignment with ISO 20022

CSDs collaborating to demonstrate how distributed ledger technology could be implemented in post-trade scenarios

WG chair and stream leaders :

SIX   euroclear   NATIONAL SETTLEMENT DEPOSITORY MOSCOW EXCHANGE GROUP   ADX ABU DHABI SECURITIES EXCHANGE
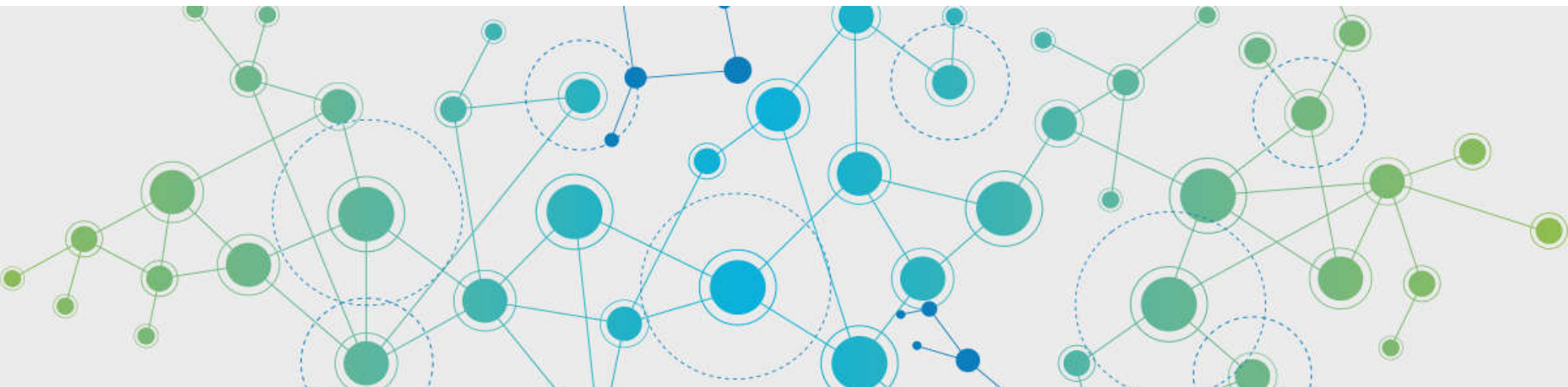
Expert representation from 30 institutions and CSDs:

ADX, BCV, BNP Paribas, BNY Mellon, Broadridge, CVA, CDS Canada, Clearstream, Credit Suisse, CSCS Nigeria, DCV Chile, DB, DB Group, DTCC< Euroclear, HKEx, ISSA, KDD Slovenia, KSD, KSEI, Marcolear, Nasdaq, NSD, NSDL, SGX, SIX, SLIB, SCB, Strate, SWIFT, TSE…and others
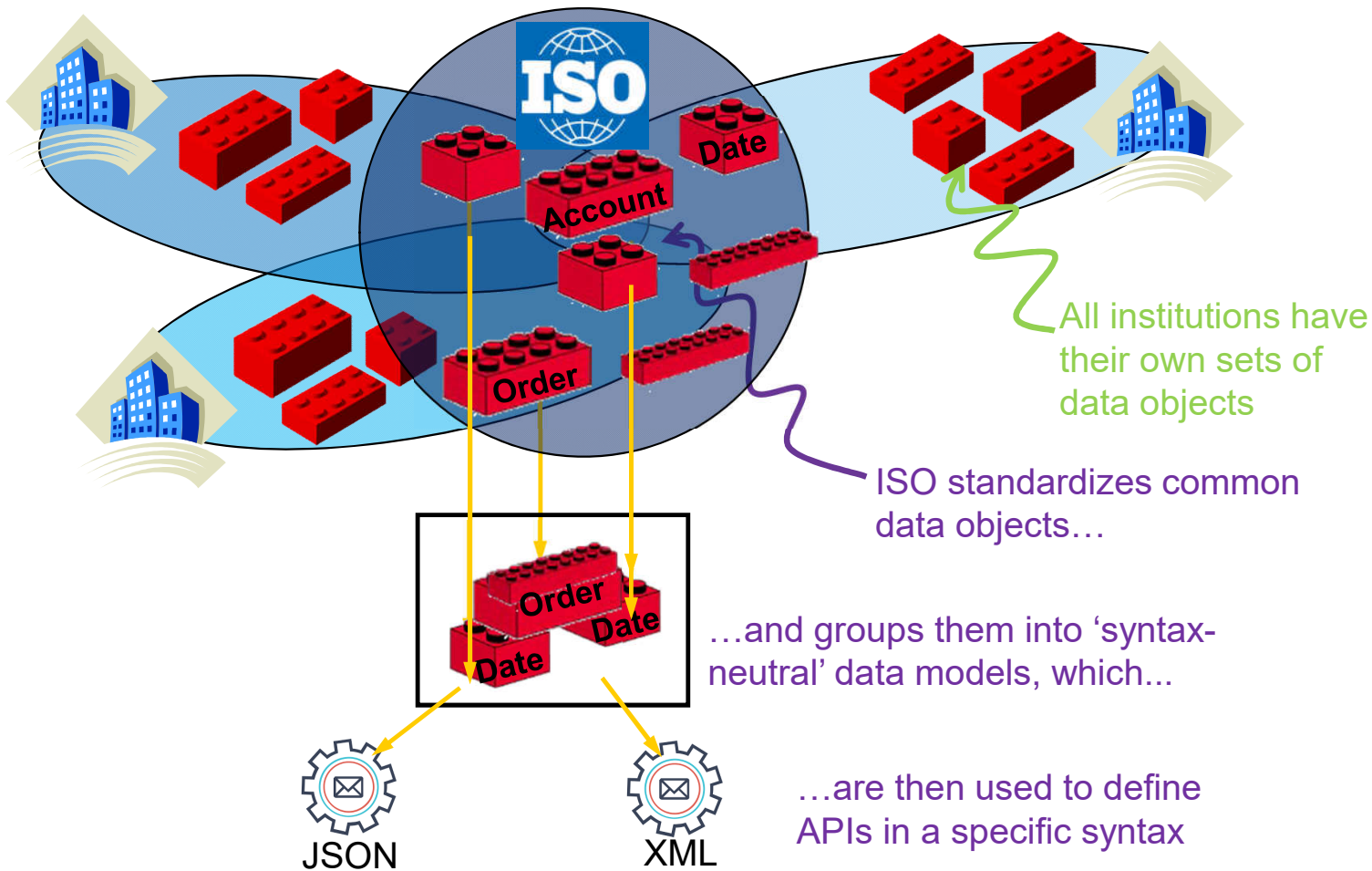
SWIFT

ISO 20022 for new technology

"Whatever the technology, in multi-party networked business, participants need to agree on the meaning and content of shared data, business processes, roles and responsibilities.

This is the domain of *business standards*"

SWIFT

ISO 20022 : addressing the need of unified business standards for new technology

All institutions have their own sets of data objects

ISO standardizes common data objects…

…and groups them into 'syntax-neutral' data models, which...

…are then used to define APIs in a specific syntax

JSON

XML

ISO 20022 architecture and re-use

			Shared business definitions
Iso 20022 as a messaging standard The logical message layer references the business layer for semantic definitions	**Business / Conceptual**	Defines financial concepts, e.g., 'Credit Transfer' and business processes	
	Logical	Defines e.g. credit transfer messages, to serve the business process	
	Physical	Defines physical syntax, e.g. XML	
Standards for API The logical DLT implementation re-uses business concepts to ensure interoperability with messaging	**Business / Conceptual**	Defines financial concepts, e.g., 'Credit Transfer' and business processes	
	Logical	A 'logical' implementation - defines data and behaviour based on new paradigm assumptions	
	Physical	A physical implementation using e.g. JSON	

SWIFT

ISO 20022 adoption and DLT investigation – Securities MI & Treasury MI
From discussion to implementation

VP Norway

Euroclear FI

T2S, EU

DLT

Euroclear, ESES

NBB-SSS, BE — Live

DLT

DTCC, US [Corp.Act] — Live

EVK, EE — Live

NSD, RU

KDPW CCP, PL — Live

CSD, LT

DLT

VP Sec DK — Live

CSD, LI

VP Lux — Live

CN

DLT

OeKB, AU

HK

DLT

JASDEC, JP [Post-trade] — Live

JASDEC & TSE, JP [Corp.Act] — Live

DLT

TR

IR

LCH.Clearnet, UK — Live

SGX [Corp.Act] — Live

SGX [Post-trade] — Live

DLT

MY

DLT

CLS — Live

Galgo, BR — Live

SADC

IDX [Corp.Act] — Live

ASX [Corp.Act] — Live

KSEI [Post-trade]

DLT

ASX [Post-trade]

DLT investigation

APAC SMI | **Securities MI** | **Treasury MI**

SWIFT

Examples: Standardisation and APIs

Home › News & Events › Press releases › SWIFT creates financial sector API blueprint

16 October 2018

## SWIFT creates financial sector API blueprint

Cooperative expedites standardisation to foster financial industry API adoption

Brussels, 16 October 2018 - SWIFT has today published a blueprint for common API standards following collaboration with European banking standards bodies, STET and Berlin Group NextGenPSD2 – who together represent many of the region's banks and payment service providers.

Read the full press release

BIAN launches digital API Exchange to help banks drive faster open banking innovation

Home › News & Events › Press releases › SWIFT publishes new 'Pay Later' API standard

16 January 2019

SWIFT publishes new 'Pay Later' API standard

New API standard will drive uptake of innovative instant loan approval process, increasing payment and borrowing choices for consumers

Brussels, 16 January 2019 - SWIFT has today published a standard for 'Pay Later' APIs in a key step toward enabling the rapid adoption of an innovative new consumer payment model. 'Pay Later' is an instant online payment facility which offers customers the ability to use traditional bank loan financing to pay for goods purchased online. By selecting Pay Later at the point of purchase, customers are provided with available loans from their banks; they can then select and initiate a loan, knowing that the funds can immediately be credited to the merchants and items dispatched. By offering the Pay Later option, merchants are in turn able to offer a wider variety of purchase options and to reach a wider consumer audience, whilst still ensuring surety of payment.

Read the full press release (PDF)

- Concluded a first phase
- Account Information Services
- ISO20022
- Avoid fragmentation, isolation and needless complexities
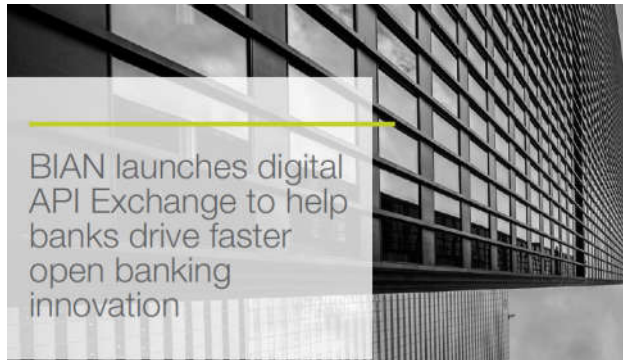
- Banking Industry Architecture Network
- Launch API Exchange (Oct 2018)
- Created by 35+ developers from leading banks & vendors (incl. SWIFT)
- Accordance with ISO20022

- Regulatory action creates more competition in financial services, higher compliance costs, lower revenues for banks
- Merchants seek frictionless payments, low cost, maximum buying power at point of purchase and reduced fraud and chargebacks
- Full alignment with ISO20022

Value of ISO 20022 for Fintech

Open and Collaborative Standard

Open and global standard

Simplifies API Integration

Tech-neutral business language

Platform & Technology Agnostic

Rich and Proven Data Model

Machine-processable repository of content

Global Interoperability

www.swift.com