

FINOS

Fintech
Open Source
Foundation

Securities & Issuer ID mapping

Securities Reference Data Project

October 2020



Introduction

FINOS: Securities Reference Data Project

Origin

Launched in 2018, led by FINOS member **NOMURA**

Recent participants*



Background

There are a range of trade identifiers used across financial services (ISIN, CUSIP, SEDOL, LEI, FIGI, RIC, BBID and many more) that serve a number of purposes, from validating the integrity of a security to providing common identifiers used during trading and settlement. The majority are either fully or partially "closed" codes, although there are some initiatives that are partially or fully open, like FIGI and OpenCorporates.

Challenge

- No single code covers all securities, while individual securities may be represented by multiple identifiers and the granularity of coverage at entity v.s corporate level also varies. This often necessitates costly and error prone mapping across identifiers. The extent of the problem is greater in some asset classes than others and certainly more prominent within the OTC market.
- The existence of regionally focused bodies/companies responsible for issuing the identifiers and, in some cases, requiring licenses to access them contributes to the problem, minimizing the possibility of consolidation onto one identifier, causing delays and reducing transparency, all of which impacts market efficiency and contributes to trade breaks and errors.

Current focus

1. Securities & Issuer ID Mapping
2. [Currency Data Standard](#)

** Firms that have participated in Security Reference Data project meetings over the past two months. For a complete list of participants, see wiki.finos.org*

Securities & Issuer ID Mapping

Executive Summary

What?

- Create open datasets for industry focusing on the common problems of security and identity mapping
- Make finding a match, consuming data, and correcting it, if necessary, easy
- Provide a neutral reference implementation
- Build a platform for adding value

Why?

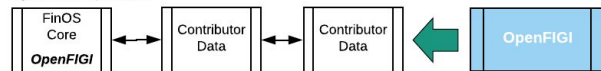
- Every financial company has this problem
- The effort to maintain and map data is non-alpha accretive and is inefficient
- Contract Negotiation is typically protracted for access to data

How?

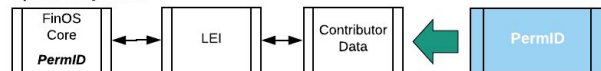
- Recognize that not all data is free
- Structure design to encourage data providers to contribute
- Simplify Contracting (Std T&Cs)
- Build on what came before – don't reinvent: FINOS will reuse OpenFIGI and PermID
- Incorporate Workflow management

FINOS Open Datasets

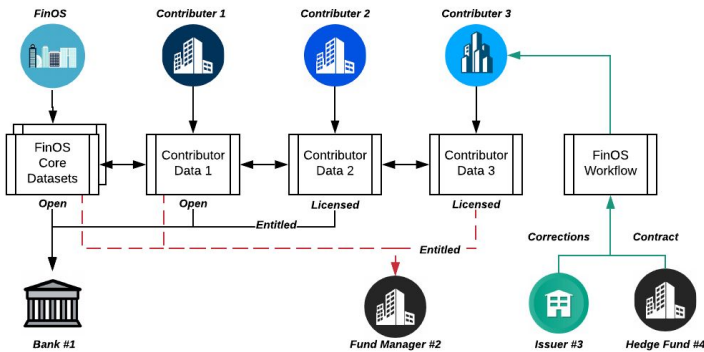
Open Security Master



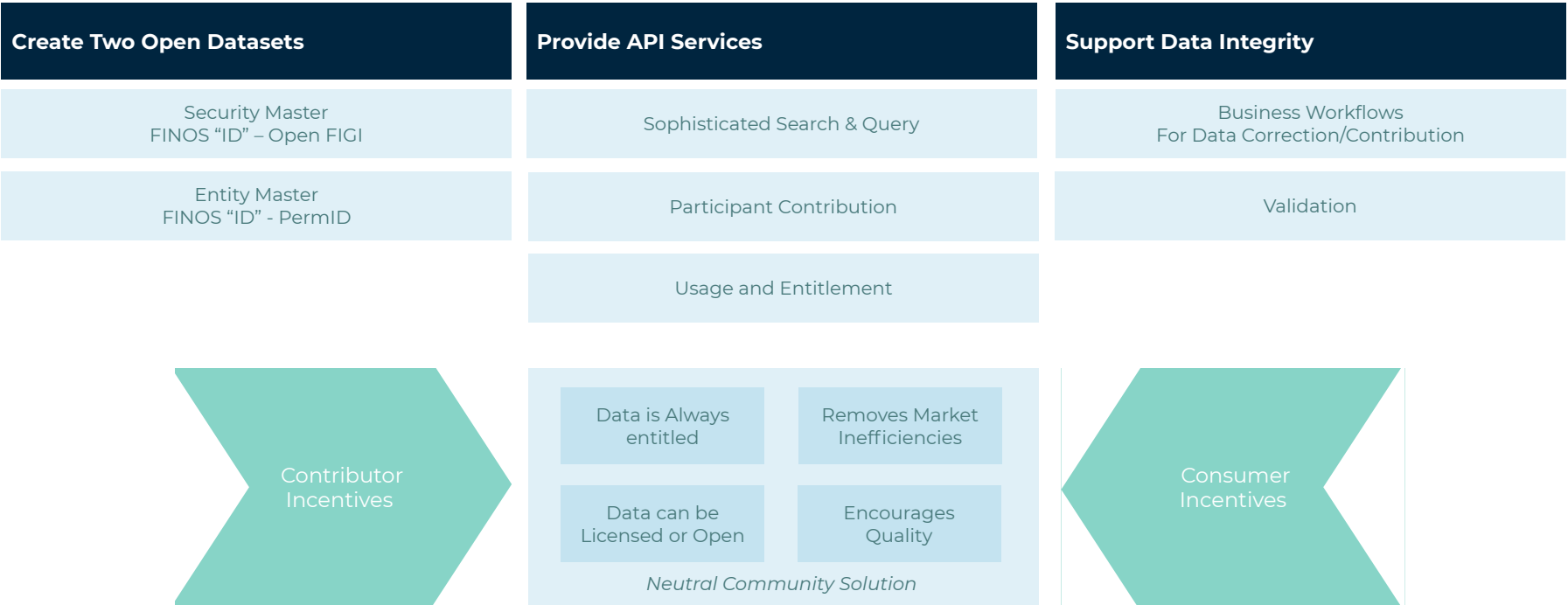
Open Identity Master



FINOS Workflows and Entitlements



Executive Summary (cont'd)



Executive Summary (cont'd)

Create Two Open Datasets

Datasets

- Open Entity Master - OEM
- Open Security Master - OSM
- OSM will refer to OEM for all entities
- Any participant/vendor may add their own "mapping" columns and participate in process workflows to amend data
- Mapping columns may be generally available (Open), licensable from the participant and/or, be entitled
- Mapping columns are identifiers to 'find' reference data
- FinOS algorithms identify highest confidence matches as set of columns
- Participants may obfuscate their entries as necessary/required
- FinOS identifiers will be based on OpenFIGI and PermID
- Data is versioned and uses Alloy Models

Provide Open Sourced Access

API

- Describing OEM and OSM
- Maintaining Column contents
- Adding Columns
- Entitlements to Columns
- Matching/Searching and Retrieving data against OIM and OSM with set/subset of parameters
- Returns data with confidence level – Implement ML reference algo
- File uploads of mapping columns
- Entitlements will use Identity based on OEM

Reference Implementation

- Host a reference implementation of the datasets, APIs
- Introduce Workflows

Moderate Data Integrity

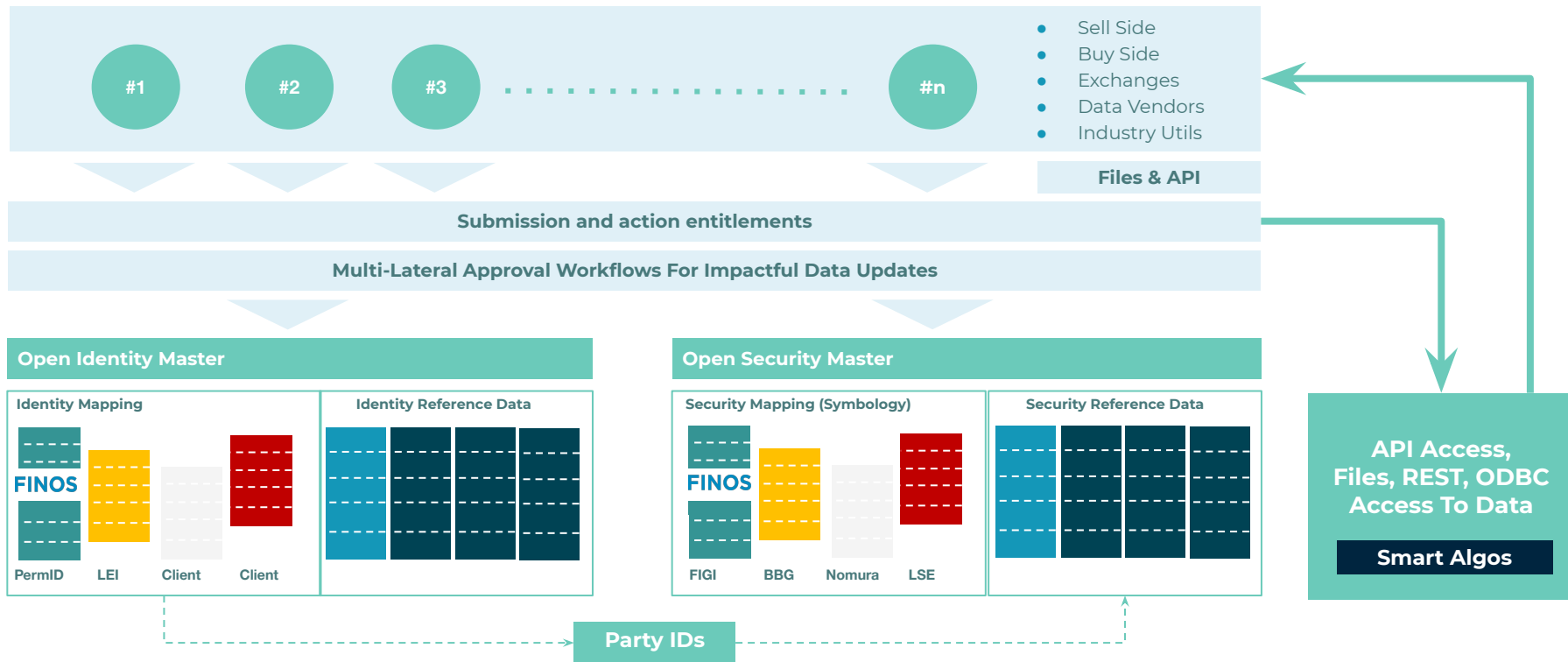
Moderate Operational Processes

- Use case dependent
- Participant believes another mapping value is wrong
- Modification of reference data
- Workflow/processes to arbitrate and change the other mapping and data columns
- Workflow engages community to validate
- Results in rejection/new version Workflow for "Entitlement" and Contracts

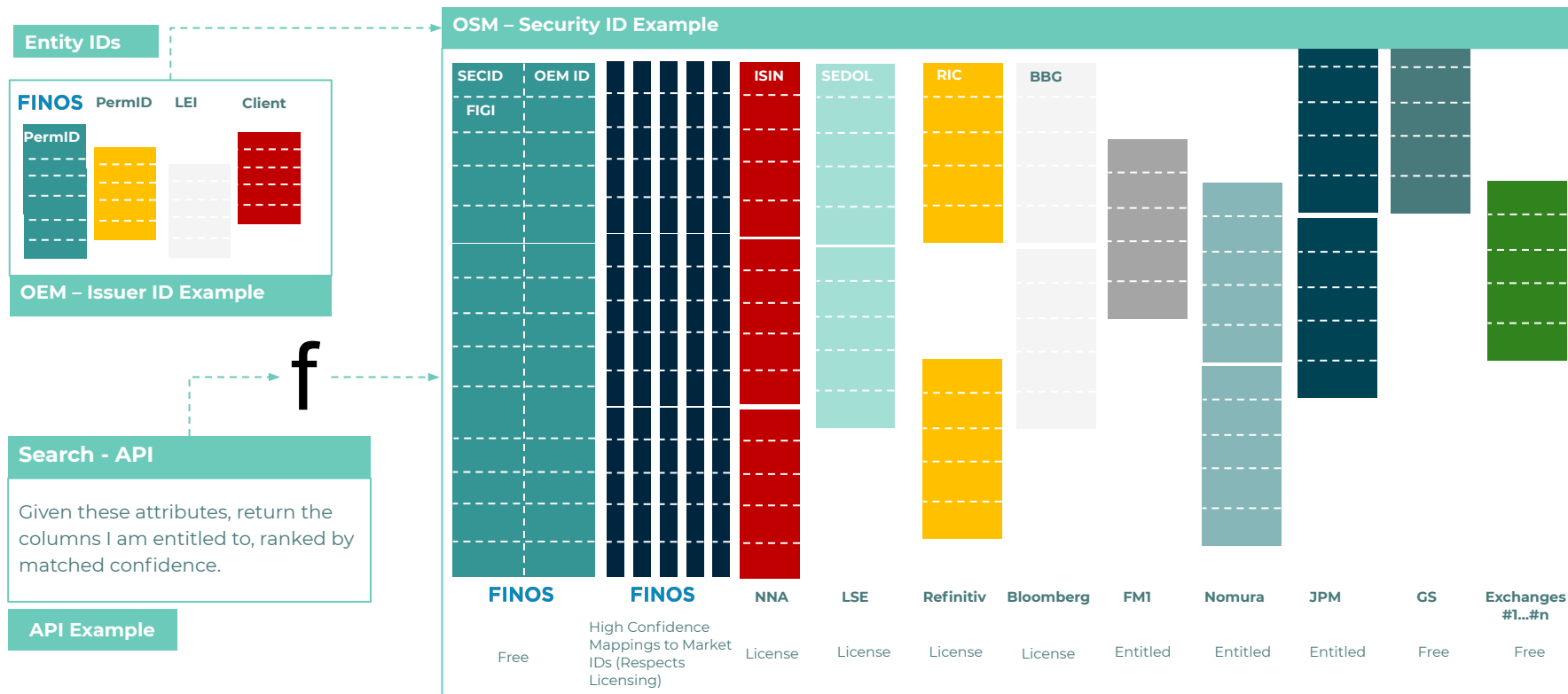
Adopt Iteratively

Iterative Approach, Mapping Column by Column, Participant by Participant, Improving Reference data Integrity

Macro Overview



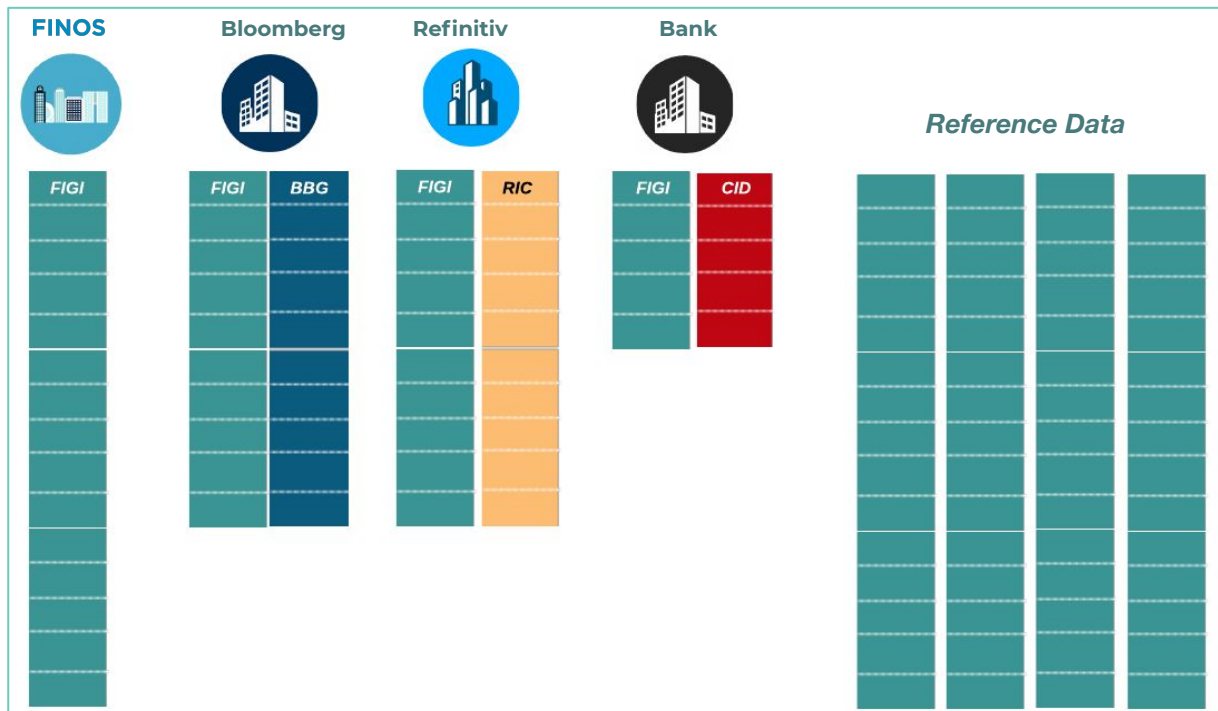
Macro Example: Identity & Symbology Mapping



Macro Example: Symbology Practicalities

- Each contributor links their data with “OpenFigi” identifier
- Consumers are able to join to any data that they are entitled to by the providers
- In Theory the same approach can be taken for Reference data items
- The utility will manage the enforcing of entitlements across
- FINOS provides a high confidence set of columns based on ISIN, CUSIP, SEDOL, RIC, BBG based on algorithms implemented for best match.

These respect licensing and are in addition to underlying contributors



Use cases

Use Case #1: Incorrect Sedol/ ISIN on Equities

Script Name	FIGI	PERM Id	Bloomberg		Refinitiv	
			ISIN	SEDOL	ISIN	SEDOL
XXX (NYSE)	B1	P1	I1	S2	I2	S1
YYY(NYSE)	B2	P2	I2	S1	I1	S2

Existing Entries in the FINOS Cloud store

Finos ID	FIGI	PERM Id	ISIN	SEDOL	CUSIP	Contributor
F1	B1	P1	I1	S2	C1	Alpha Inc
F2	B2	P2	I2	S1	C2	Beta Inc

FIGI	PERM Id	ISIN	SEDOL	CUSIP	Contributor
B2	P2	I2	S2	C2	Gamma Inc

Incoming entry from a contributor Gamma Inc

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Questions?

data-tech-sec-ref@finos.org
help@finos.org

Appendix

The Foundation at a glance..



The Fintech Open Source Foundation (FINOS) is an **independent, non-profit membership organization** whose purpose is to **accelerate** collaboration and **innovation in financial services** through the adoption of Open Source software, standards and best practices.



Over **30 member organizations** and **300+ contributors** collaborate to **develop software**, deliver **standards** and drive collaboration in data and data technologies, cloud services, the financial desktop and more.



FINOS also runs an **Open Source Readiness** initiative to help financial firms **adopt best-practice policies, processes, and technology** for open source compliance.



FINOS hosts the **Open Source Strategy Forum**, the first and only Open Source conference solely focused on financial services and regulated industries.

FINOS Community by the Numbers

PLATINUM



J.P.Morgan

GitHub

Morgan Stanley

NOMURA



GOLD



SILVER



SCOTT LOGIC



20

Active Open Source Projects
and Working Groups

19

Incubating Open Source
Projects and Working Groups

300+

Contributors

34

Member Organizations

How can you engage with FINOS?



CONSUME

landscape.finos.org
finos.org/knowledge-base
www.finos.org/get-involved
twitter.com/finosfoundation



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