FINOS

Fintech
Open Source
Foundation

# An Introduction to FINOS
## The home for open source & open standards in Financial Services

THE LINUX FOUNDATION

# What is FINOS?

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.

**FINOS is also the financial services project of the Linux Foundation,** the largest shared technology investment in the world.

Oh, and in case you're wondering, it's pronounced *fee·nowz*

# What do we do, at a glance?

The Fintech Open Source Foundation (FINOS) acts as an **independent, neutral, compliant steward** for transparently governed open source, open standards and specifications **relied & collaborated upon by the financial industry at large.**

Supported by over **65 member organizations**, we nurtured **2000+ contributors from financial institutions, big tech and fintech vendors** to mutualize resolution of **common, non-differentiating strategic challenges** in **50+ open projects**.

FINOS also runs an **Open Source Readiness Initiative** to help financial firms harvest **the full business value of open source participation, in full regulatory compliance**
.

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

# FINOS Flagship Projects

## DATA VISUALIZATION

**PERSPECTIVE**

- **Perspective** is an interactive visualization component for large, real-time datasets, used to build reports, dashboards and more, contributed by JP Morgan.

**WALTZ**

- **Waltz** allows you to visualize and define your organisation's technology landscape. Think of it like a structured Wiki for your architecture.

## INTEROPERABILITY

- **FDC3** is an open standard that enables plug-and-play interoperability on the financial desktop.

## DATA MODELING

**LEGEND**

- **Legend** is a data modeling platform and environment open sourced by Goldman Sachs

**CDM**
**COMMON DOMAIN MODEL**

- **The CDM** is a standardised, machine-readable and machine-executable blueprint for financial products and the transaction lifecycle.

## CLOUD AND OSS ENABLEMENT

**COMPLIANT FINANCIAL INFRASTRUCTURE**

- The **Compliant Financial Infrastructure** project is following an open, code-first, collaborative process to mutualize - among FIs and vendors - the cost of cloud control interpretation and implementation.

## OPEN REGTECH

**OPEN REG TECH** US LCR

- **LCR** is a Morgan Stanley open sourced implementation of the US Liquidity Coverage Ratio..

**morphir**

- **Morphir** is a multi-language system built on a data format that captures an application's domain model and business logic in a technology agnostic manner

**OPEN SOURCE READINESS** by FINOS

- The **Open Source Readiness SIGe** is the engine that produces industry-wide accepted best practices for financial institutions to accelerate their open source programs..

## See the full FINOS Landscape
landscape.finos.org
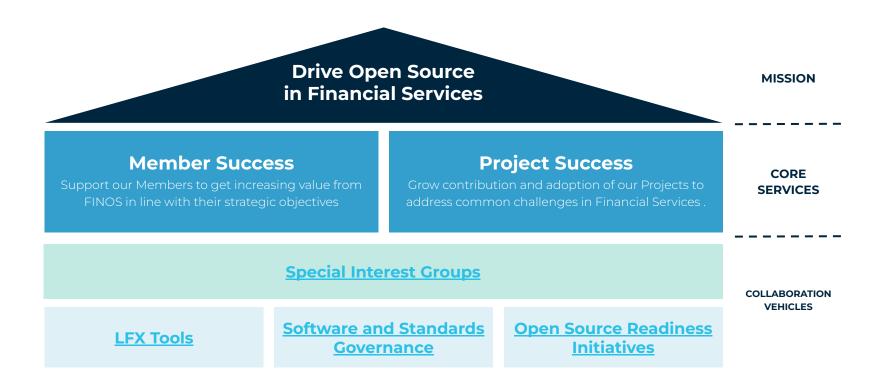
***Contribute:***
*github.com/finos*
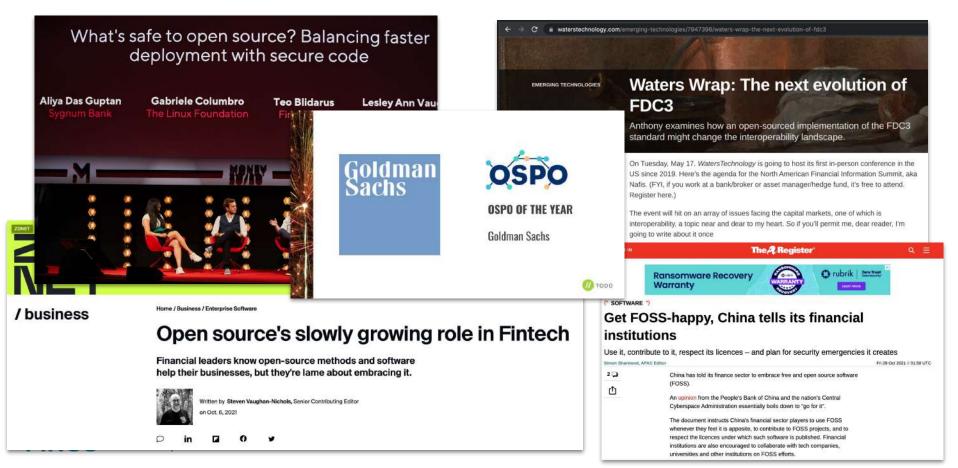
# This is a PIVOTAL time for open source in Financial Services.

*And if your firm is not engaging yet, you should really do more in the space or risk being left behind.*
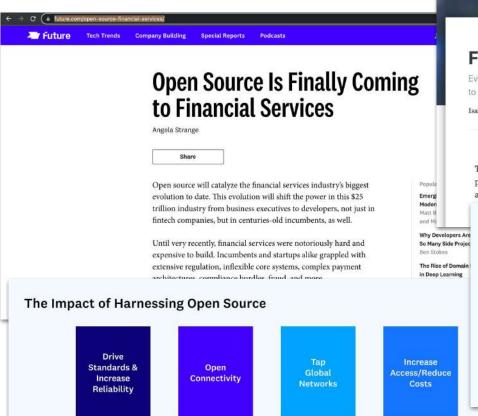
# How FINOS Enables Open Source in Financial Services

Drive Open Source
in Financial Services

MISSION

## Member Success
Support our Members to get increasing value from FINOS in line with their strategic objectives

## Project Success
Grow contribution and adoption of our Projects to address common challenges in Financial Services .

CORE SERVICES

Special Interest Groups

COLLABORATION VEHICLES

LFX Tools

Software and Standards Governance

Open Source Readiness Initiatives

**FINOS** Fintech Open Source Foundation

finos.org

# ...and sending shockwaves throughout the industry!

# Now even Fintechs & VCs are waking up…



## Open Source Is Finally Coming to Financial Services

Angela Strange

Open source will catalyze the financial services industry's biggest evolution to date. This evolution will shift the power in this $25 trillion industry from business executives to developers, not just in fintech companies, but in centuries-old incumbents, as well.

Until very recently, financial services were notoriously hard and expensive to build. Incumbents and startups alike grappled with extensive regulation, inflexible core systems, complex payment architectures, compliance hurdles, fraud, and more

## Fintech and Open Source

Even though banking "as a service" continues to solve many problems, our banking infrastructure needs to be further evolved, and open source will drive the next generation of infrastructure.

Isabella Ferreira  •  June 2, 2022

The regulatory framework that financial services must comply with, complex payment architectures, and fraud are some of the reasons why financial services are difficult and expensive to build [1]. Banking as a service was created to address
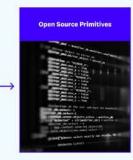
### The Evolution of Financial Services Building Blocks

### The Impact of Harnessing Open Source

# ...and Buy-Sides are joining the party...

## Why are buy-side firms embracing open source collaboration?

*Open Source is now widely recognized safe and compliant collaboration model that enables not only IT innovation but addressing long standing industry-wide challenges*

**Point72**

**Strategic Value**

**Business Org Value**

**Tech Org Value**

**WELLINGTON MANAGEMENT®**

**FINOS**

Fintech Open Source Foundation

**Point72, a global asset manager which invests in multiple strategies and asset classes, was the first buy-side firm to join FINOS earlier in 2022.**

**They join FINOS to improve their OSS posture including:**

- **Open Source Readiness**

- **Innersource**

- **Influence on FSI standards**

**May 2022**: One of the world's largest independent investment management firms, Wellington joins FINOS as a Platinum member.

**Wellington's Co-Head, Technology, Madeleine Dassule joins the FINOS board of directors.**

**Leveraging the power of open source technology through projects contributed to FINOS, like FDC3 and Legend, buy-side institutions enable direct connectivity with their counterparts and reduce vendor lock-in.**
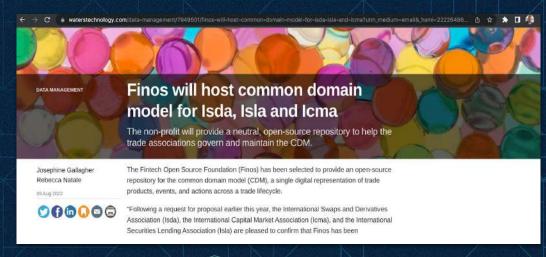
# ...even industry consortia are betting on OSS!



FINTECH OPEN SOURCE FOUNDATION (FINOS), HYPERLEDGER FOUNDATION, AND THE DIGITAL DOLLAR PROJECT TEAM UP TO DRIVE OPEN DEVELOPMENT AND COLLABORATION FOR CBDCS

By Gabriele Columbro, FINOS; Karen Ottoni, Hyperledger Foundation; and Jennifer Lassiter, The Digital Dollar Project

ANNOUNCING THE OPEN DIGITAL CURRENCY INITIATIVE

Joining together to promote **open collaboration** for **central bank digital currencies**



DATA MANAGEMENT

## Finos will host common domain model for Isda, Isla and Icma

The non-profit will provide a neutral, open-source repository to help the trade associations govern and maintain the CDM.

Josephine Gallagher
Rebecca Natale

09 Aug 2022

The Fintech Open Source Foundation (Finos) has been selected to provide an open-source repository for the common domain model (CDM), a single digital representation of trade products, events, and actions across a trade lifecycle.

"Following a request for proposal earlier this year, the International Swaps and Derivatives Association (Isda), the International Capital Market Association (Icma), and the International Securities Lending Association (Isla) are pleased to confirm that Finos has been

Fintech Open Source Foundation (FINOS), Hyperledger Foundation and The Digital Dollar Project (DDP) are joining forces to create an open community dedicated to experimentation, information sharing, and discussion around CBDCs, ensuring that central banks that decide to embark upon researching or deploying CBDCs are doing so with the best available secure technology.

The Fintech Open Source Foundation (Finos) has been selected to provide an open-source repository for the common domain model (CDM), a single digital representation of trade products, events, and actions across a trade lifecycle.

# Because open source unlocks strategic value beyond "just code"

**OPEN SOURCE MATURITY** ↑

## C-Suite Value

The mandate to become **technology companies**

Promote and influence **de-facto industry standards, APIs, SDKs**

Commoditize **competitive technologies through open source**

Open Source and **banking as a platform**

Open Source **and Supply chain security**

## Business Org Value

### Open Source goes beyond just code:

Fast & efficient response to **client demands** (e.g.. buy-side <-> sell side, vendor <-> end user)

Concrete and transparent collaboration **with regulators**

Fast iteration with peers on **pan-industry challenges**

## Tech Org Value

**Recruit & Retain** by enabling an increasingly efficient OSS workflow

**Increase Efficiency** by mutualizating non-competitive tech (e.g. reg compliance)

**De-Risk** Reduce vendor lock-in and obsolescence

Regulation Innovation

FINANCIAL OBJECTS

LEGEND

FDC³

morphir

DevOps Mutualization

COMPLIANT FINANCIAL INFRASTRUCTURE

Open Source READINESS

InnerSource

WALTZ

# Open Source is now a ~~CIO~~ CEO level concern...

**The Washington Post**
*Democracy Dies in Darkness*

**Exclusive: Senate panel leaders push legislation to tackle issues raised by the sweeping log4j vulnerability**

**European Commission**

## Cyber Resilience Act

The proposal for a regulation on cybersecurity requirements for products with digital elements, known as the Cyber Resilience Act, bolsters cybersecurity rules to ensure more secure hardware and software products.

**EU Cyber Resilience Act**

For safer & more secure digital products

#DigitalEU #CyberSecEU

Hardware and software products are increasingly subject to successful cyberattacks, leading to an estimated global annual cost of cybercrime of €5.5 trillion by 2021.

**FEDERAL TRADE COMMISSION**
PROTECTING AMERICA'S CONSUMERS

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Tech@FTC

## FTC warns companies to remediate Log4j security vulnerability

By:  This blog is a collaboration between CTO and DPIP staff and the AI Strategy team    |    January 4, 2022

Log4j is a ubiquitous piece of software used to record activities in a wide range of systems found in consumer-facing products and services. Recently, a serious vulnerability in the popular Java logging package, Log4j (CVE-2021-44228) was disclosed, posing a severe risk to millions of consumer products to enterprise software and web applications. This vulnerability is being widely exploited by a growing set of attackers.

Subscribe

Subscribe to Tech@FTC Blog updates

Upcoming FTC Tech Events

# ...as it disrupts industries over and over again!



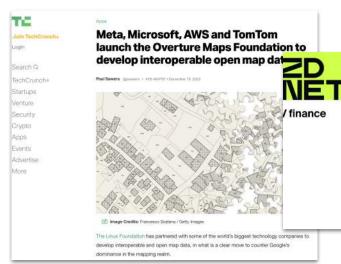**Meta, Microsoft, AWS and TomTom launch the Overture Maps Foundation to develop interoperable open map data**

*"The Linux Foundation has partnered with some of the world's biggest technology companies to develop interoperable and open map data, in what is **a clear move to counter Google's dominance in the mapping realm**"*

**OpenWallet seeks to open-source your digital wallet**

"it's not necessarily seeking to create the single biggest digital wallet provider and **knock the likes of Apple or Google off their pedestals**.."

"incrementalism wasn't going to make google successful with GCE - how do we shake things up in a way that ... gives google a fighting chance ... **against the dominance AWS had at the time**"

# FSIs are living an OSS awakening...
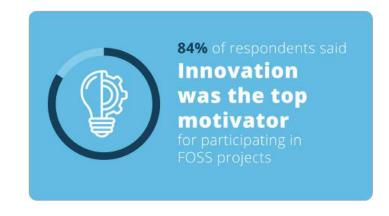
*"...**the financial services industry has pioneered things that later became popular in open source**, like efficient messaging protocols, microservices, and event streaming, but the **technologies were kept proprietary in banks and only became mainstream when other companies open sourced them**. It would be beneficial to contribute more..."*

**CTO, Investment Bank**

**84%** of respondents said **Innovation was the top motivator** for participating in FOSS projects

**72%** of respondents said they **commit to looking for open source solutions** before proprietary ones.

*"We base our business around things like Linux, and we base our business around platforms like Kubernetes, these kinds of large efforts. And we help finance foundations -- and that's great. **But these projects won't just live on their own.** So not only should we be supporting them through our knowledge and experience, aka opening pull requests [contributing code directly], **but also being able to exert our own opinion in those spaces.**"*

**Head of OSPO, Global bank**

GitHub repositories with **commits from financial services institutions are up 43%** over last year.

48% of respondents strongly agreed that **improving security is a top reason** their organization should contribute to open source. This is up from 28% in 2021.

56% agree that their organizations are getting **more value from open source** compared to 2021.

**The ability for financial services employees to contribute to open source is up 75%** (20% in 2021 vs. 35% in 2022).

# In 2022 we welcomed 18 new Members...

**Platinum**

WELLINGTON MANAGEMENT®

**Gold**

AMERICAN EXPRESS · AXA · Google Cloud · LLOYDS BANKING GROUP · SOCIETE GENERALE · temenos

**Silver**

MIRANTIS · Point72 · REGnosys THE REGULATORY TECHNOLOGY PLATFORM · Luxoft A DXC Technology Company · Blockchain Technology Partners · controlplane · PEERNOVA

**Associate**

THE DIGITAL DOLLAR PROJECT · eSOP · Mifos · RegTech

# ...and added more than one project a month!

FDC³ Conformance

OPEN REG TECH | US LCR

trac data + analytics platform

**Vuu** The Real-time View Server

FDC3 SAIL

FDC³ Backplane

CDM COMMON DOMAIN MODEL

FINANCIAL OBJECTS Product Control Common Template

DIVERSITY EQUITY + INCLUSION Special Interest Group

regular-table

SYMPHONY GENERATOR

OPEN SOURCE MATURITY MODEL

FINOS SECURITY SCANNING
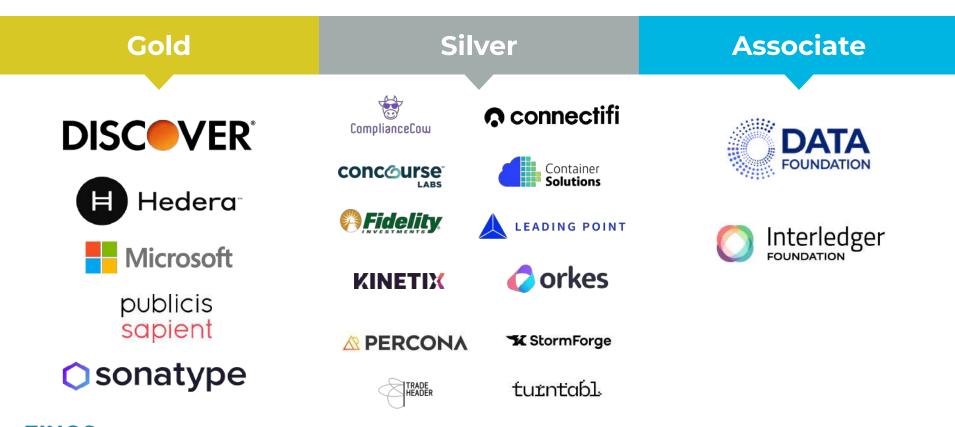
# 2023 - The highest # of members we ever added

| Gold | Silver | Associate |
|------|--------|-----------|

**Open Source Contribution**

**+63%**
Unique Contributors YoY

**>43K**
Commits on FINOS repos YoY

**13**
New Projects contributed In 2022

Source: **metrics.finos.org**

PERSPECTIVE

FDC³

THE LINUX FOUNDATION TRAINING

**Adoption**

**+2905%**
NPM Downloads Since 2019

**+671%**
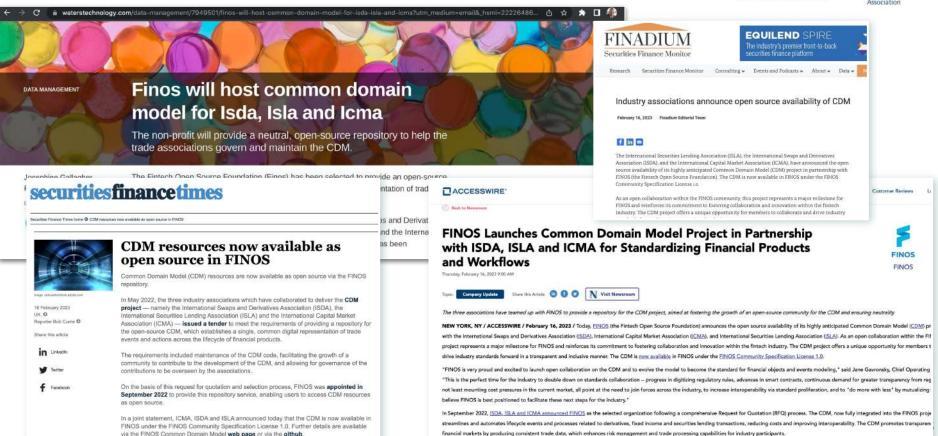NPM Downloads Since Jan 2022

**352**
Enrollees in FINOS training

Source: **npm-stat.com**

# NEW: the CDM is now Open Source!
**github.com/finos/common-domain-model**

# OSFF NYC + London 2022 were record-breaking events!

**Learn more with [NYC](#) and [London](#) post event reports**



We welcomed **620** Open Source & Financial Services Industry and Community Leaders for this year's Open Source in Finance Forum in New York City. Attendees came from **254** organizations in **17** countries around the globe, with **86%** of attendees hailing from the United States.

**THANK YOU TO OUR SPONSORS!**

**LEADER**

EDB

**CONTRIBUTOR**

Canonical Ubuntu · databricks · MIRANTIS · Red Hat

**COMMUNITY**

Aeron · FUJITSU · · Mattermost · MEND · MySQL · PERCONA · SUSE · TIDELIFT · TuxCare

**32%** of all conference speakers identified as **women or non-binary**

An estimated **11%** of registered attendees identified as **a person of color**

An estimated **9%** of conference speakers identified as **a person of color**

**40%** of attendees identified as **women or non-binary**

# FINOS helps you unlock the value of open source in financial services

*If you are OS ready you can engage in our 50+ projects. If you are not, we can help you accelerate your corporate OS readiness.*

# The Five Stages of Community Engagement

**STAGE**

**VALUE**

**OSS ROI is directly proportional to Corporate OSS maturity**

**LEAD**
Become a Member and propose a **project** or a **Special Interest Group**

Influence the overall strategy and focus of the Foundation by participating as a Member or on the Governing Board, and ensure sustained growth for the projects your care about

**CONTRIBUTE**
To an existing project or an entirely new project

Grow adoption and contribution to a critical open source component or open standard in a neural environment with the support of the FINOS community

**PARTICIPATE**
In FINOS projects, Special Interest Groups (SIGs), Online and in person events, e.g Open Source in Finance Forum

Interact directly with some of the best technical talent in the industry, collaborating and influencing the direction of our projects towards efficiently solving ever more common industry challenges

**CONSUME**
Any of the Foundation's open source (Apache v2) software and open standards projects as well as Open Source Readiness enablement material

Immediately realize value by leveraging FINOS financial services grade open source projects and open standards adopted by the largest global FSIs as well as ready-made material to accelerate your own enterprise OSS journey

**EVALUATE**
The FINOS Project Landscape, our Github organization , the State of Open Source in Financial Services report, LFX Community metrics, our Knowledge Base

Get valuable insights on the business challenges open source is solving in the financial industry and learn more about the open source projects and standards currently available to address those

# Not ready? We can help you in the journey!

**Financial services** firms face **unique challenges** to collaborate in the open:

| Legal & regulatory concerns |
|---|

| Lack of internal policies |
|---|

| Cultural friction |
|---|

| Heavily restricted technology environments |
|---|

Driving Open Source in Financial Services starts by **enabling safe, compliant open source consumption and contribution.** FINOS provides industry accepted, open and free materials:

| **Meetings** | The **Open Source Readiness (OSR) Special Interest Group (SIG)**, meeting on a monthly basis, is a venue dedicated to discussing open source readiness challenges for financial services firms. The purpose of the OSR SIG is to agree on the approach to address these challenges, and to set up open source projects to develop solutions. | |
|---|---|---|
| **Resources** | **Reference OS Policy** | Template for a comprehensive open source software policy for a financial services institution, including sample provisions governing the acquisition and use of OSS, and contribution to OSS projects. |
| | **OS License Compliance Handbook** | Reference guide to practical compliance information for the most common open source licenses. Great for engineers and compliance staff operationalizing compliance with third-party license. |
| | **Open Source Maturity Model** *New!* | Comprehensive survey and model to evaluate maturity of financial services firms against enterprise consumption, contribution and governance of open source. To be released soon in collaboration with Wipro. |

# Introducing the
# Open Source Readiness Initiative

**Learn more at finos.org/open-source-readiness**

# You can't improve what you can't measure!

## Why OSMM?

The OSMM allows you to chart your bank's open source maturity across several dimensions.

OSMM provides a snapshot of the bank's current maturity and the steps needed to gain a greater level of open source maturity.

**INTRODUCING THE**

## OPEN SOURCE MATURITY MODEL *(Beta)*

*Contributed By*

**wipro**

## Get Involved

**Take the OSMM today!**
bit.ly/3H8GT2T

**Contribute to OSMM**
github.com/finos-labs/osmm

**Join our OSR SIG**
osr.finos.org

**Because when you can contribute new or to existing project, that's where the true ROI is realized.**

*FINOS 50+ projects from interop to data standards, from UI to infra, from regulation to developer enablement.*

# Legend: An industry success story

## LEGEND

### Open Sourcing
**October 2020**

### Adoption
**As of September 2021**
At least **three financial institutions** are in advanced stages of evaluating local deployment of Legend

### Announcement
**November 2019**

Goldman Sachs announces their intention to Open Source Legend (formerly knowns as Alloy) at the 2019 FINOS Open Source Strategy Forum. See **Legend 101 Walkthrough**.

The code for Goldman Sachs' internal data platform is now open for anyone to use. The bank's data chief tells us why the firm decided to share something seven years in the making.

**FINOS**
**Goldman Sachs**

Goldman Sachs is planning on giving some of its most valuable software to Wall Street for free

### Integrations
**2022**

**Legend + Deltalake**
(by Databricks)

**Legend + Juju**
(by Canonical)

**CDM contributed**
ISDA, ISLA, ICMA join forces and contribute a major industry wide model to FINOS.

### Industry wide business modeling
**Ongoing**

Goldman Sachs & ISDA stepped forward to lead the **Financial Objects Special Interest Group** to promote the creation, enhancement and adoption of standard financial objects & data models in the open. Industry consortia like **ISDA and ISLA** join FINOS to accelerate standardization through OSS.

### Legend Studio Pilot
**April - September 2020**

**ISDA CDM**

FINOS members, including Deutsche Bank, Goldman Sachs, GitLab, ISDA, Itau, Morgan Stanley, RBC and Scott Logic built extensions to the ISDA CDM using Legend Studio

*Learn more: **Legend Studio Case Study***
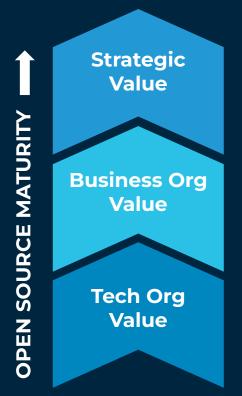
### Relational Mapping & Query Components
**July 2021**

The Legend team continues to open source additional functionalities to map data models to databases (relational component) and to create queries on top of models (query)

# Perspective: Open Source ROI

**PERSPECTIVE**

**OPEN SOURCE MATURITY**

Strategic Value

Business Org Value

Tech Org Value

By deploying the Perspective data visualization component, originally developed by JP Morgan and contributed to FINOS, one FINOS Platinum member saved:

| Time savings | Headcount savings | Cost savings |
|---|---|---|
| 3 years of development | 4 developers 1 business analyst 1 QA | US$ 3,500,000 |

**FINOS** Fintech Open Source Foundation

finos.org

# FDC³: Interoperability the financial desktop

## Participants & adopters

Adaptive

Citi

Finsemble

FACTSET

genesis
Code Less, Do More™

GLUE42

GreenKey

IHS Markit

J.P.Morgan

openfin

RBC Capital Markets

REFINITIV

SCOTT LOGIC
ALTOGETHER SMARTER

UBS

SYMBOL SYMPHONY

STATE STREET

### 2021

**FDC3 1.2 Released**
Early 2021 - fdc3.finos.org

**FDC3 Intro Training**
(New!) *training.linuxfoundation.org*

**FDC3 Workbench**
*https://github.com/finos/FDC3/tree/master/toolbox/fdc3-workbench*

### August 2022
### FDC3 2.0 - released!

**Get involved**
As a participant at
**github.com/finos/fdc3**

**Join** a standard meeting

Help us shape the vision for a truly open app financial desktop ecosystem!

### Dec 2022
**App Directory**
10+ apps available in the Beta directory at
**directory.fdc3.finos.org**

**Conformance**
The first 3 FDC3 conformant Desktop Agents are certified!
**fdc3.finos.org/community**

➹ **See who's using it**
fdc3.finos.org

➹ **How are you using FDC3**
Email fdc3@finos.org

## See full details in Appendix A

# FINOS Special Interest Groups

FINOS Special Interest Groups provide a **venue** to discuss **common challenges in financial services** and to agree on actionable **use cases**. FINOS SIGs contribute new use cases to existing projects, or lead to the proposal of new open source projects to the Foundation.

**DIVERSITY EQUITY + INCLUSION**
Special Interest Group

*To **demonstrably improve diversity** of FINOS through increased participation of **underrepresented people on the Board, among FINOS team members, and the FINOS community***

## Tech Enablement

**Open Source READINESS**

The Open Source Readiness SIG provides a venue for the FINOS community to share their **open source readiness journey**, and discuss ways to overcome obstacles to open source adoption (including contribution) in financial services organizations. It is led by FINOS members **Wipro and RBC.**
*Learn more at github.com/finos/open-source-readiness*

**InnerSource SPECIAL INTEREST GROUP**

The InnerSource SIG is a community of people implementing and accelerating InnerSource- i.e. applying open source best practices to proprietary code development - within their financial services organization. It is led by FINOS members **Capital One, Deutsche Bank, InnerSource Commons, Morgan Stanley, and RBC.**
*Learn more at github.com/finos/InnerSource*

**DevOps Mutualization**

The DevOpsM SIG aims to solve common engineering problems in the highly regulated financial services industry. It is led by FINOS members **Morgan Stanley and Cloudbees**..
*Learn more at github.com/finos/devops-mutualization*

## Business Use Cases

**FINANCIAL OBJECTS**

The Financial Objects SIG provides a neutral forum for individuals across the financial services industry to collectively identify the need for **new, open, financial objects standards as well as modifications to existing ones.** It is led by FINOS members **Goldman Sachs and ISDA**,
*Learn more at github.com/finos/financial-objects*

**Regulation Innovation SPECIAL INTEREST GROUP**

The Regulation Innovation SIG, is a community of people interested in creating **open source solutions for regulatory and compliance issues in financial services.** It is part of the FINOS Open RegTech Initiative and is led by FINOS Member **AIR and by ING.**
*Learn more at github.com/finos/open-regtech-sig*

**Special Interest Groups meet regularly and participation is open to everyone. Find the next meeting on the FINOS Community Calendar**
*(email help@finos.org if you would like to be added to a recurring calendar invite)*

*Visit landscape.finos.org for a full list of FINOS projects and initiatives. Learn more about FINOS Special Interest Groups here.*

# The Vision for our Open RegTech Initiative

**TRADITIONAL MODEL**

Regulators define regulations…

…in comprehensive and often lengthy documents

Regulated firms interpret those regulations…

…and independently build technology solutions (or pay for vendor solutions) to meet them.

**OPEN SOURCE OPPORTUNITY**

Regulators define regulations…

**Long term**

## Open Source Regulation

| Access to Talent | Systemic cost savings | Efficiency |
| --- | --- | --- |
| Transparency | | Consistent Interpretation |

**Short term**

Write once, inspect anywhere and participate & lead OSS efforts

Industry participants collaborate in the open to interpret and implement regulations
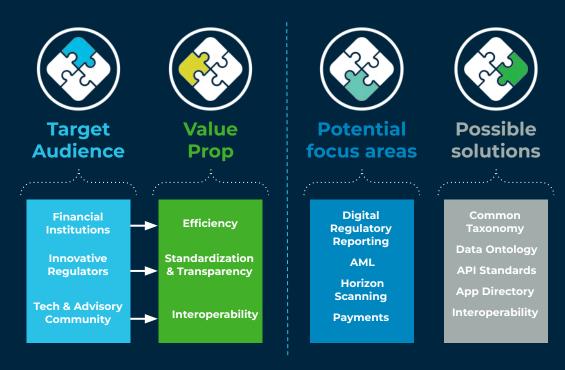
# Regulation Innovation SIG

**Newly contributed reg projects:**
- TRAC (Accenture)
- LCR (Morgan Stanley)
- CDM (ISDA, ICMA, ISLA)

The Regulation Innovation SIG brings together a **community of people interested in creating open source solutions for regulatory and compliance issues.** Creating open source solutions to regulatory compliance is particularly important because the **market is currently using custom-built, one-off solutions, that are expensive, inefficient, and costly to manage and update** over time.

air — Alliance for Innovative Regulation

**ING**

## Target Audience

Financial Institutions

Innovative Regulators

Tech & Advisory Community

## Value Prop

Efficiency

Standardization & Transparency

Interoperability

## Potential focus areas

Digital Regulatory Reporting

AML

Horizon Scanning

Payments

## Possible solutions

Common Taxonomy

Data Ontology

API Standards

App Directory

Interoperability

**Learn more & get involved at github.com/finos/open-regtech**

# Symphony's open source ecosystem

## Overview

FINOS was originally the Symphony Software Foundation, formed to build a **collaborative ecosystem** for open projects and open standards around the **Symphony messaging and collaboration** platform.

**Present**

FINOS now contains several projects including Symphony, integrations, bots, developer tools and desktop components, where financial institutions can contribute directly.
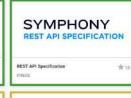
Today, Symphony counts over half a million users, servicing more than 1,000 institutions, making Symphony a huge conduit for OSS and Open Standards developed in FINOS.

### 2015

SYMPHONY
SOFTWARE FOUNDATION

**Symphony Software Foundation\* created** by several investment banks as Founding Members

*(\*) Symphony Software Foundation became FINOS in 2018*

| | | | |
|---|---|---|---|
| SYMPHONY **JCURL** <br> JCurl ★18 <br> FINOS | SYMPHONY **MESSAGEML UTILITIES** <br> MessageML Utilities ★7 <br> FINOS | SYMPHONY **REST API SPECIFICATION** <br> REST API Specification ★10 <br> FINOS | SYMPHONY **BDK JAVA** <br> Symphony BDK Java ★16 <br> FINOS |
| SYMPHONY **BDK PYTHON** <br> Symphony BDK Python ★21 <br> FINOS | SYMPHONY **JAVA TOOLKIT** <br> Symphony Java Toolkit ★19 <br> FINOS | SYMPHONY **MEDIA BRIDGE** <br> Symphony Media Bridge <br> FINOS | SYMPHONY **WORKFLOW DEVELOPER KIT** <br> Symphony WDK <br> FINOS |

# Why projects choose FINOS/LF vs going it alone

## Technical Infrastructure

**Technical Infrastructure & Tooling.** FINOS handles not only Github/Gitlab set-up and maintenance but also provides CI/CD tooling (through **LFX** and **its collaboration infrastructure** to accelerate compliant, secure developer commits and pull requests.

**Security Scanning and responsible disclosure.** FINOS uses several best-of-breed technologies to scan code for **CVEs** and implements a professional **vulnerability responsible disclosure**.

**Migration.** For projects not already open sourced, FINOS assists with the legal and technical inspection required to prepare a project code base to be open sourced under the Apache 2.0 license (the preferred license of the foundation).

## Community

**Ready and Growing Community.** Rather than build a developer community from scratch, FINOS projects plug into a **vibrant community** across over 50 Projects.

**OSS Enabled Community.** FINOS is trusted by the largest financial institutions to enable their developers to participate in open source projects in a compliant way. Monitor the growth of our community at **metrics.finos.org**

**Community Management Support.** FINOS supports its projects in their development of roadmaps and feature prioritization. FINOS also helps with promoting projects to both contributors and end-users including press releases, microsites, social media, webinars, and in person events. See our **world class staff**.

## Legal & Governance

**Neutrality.** FINOS provides a neutral home and transparent governance for industry standards and open source projects. See our **Governance**.

**Open Source Readiness.** Our **Open Source Readiness (OSR)** project supports your journey towards Open Source.

**IP Validation.** FINOS handles the licensing agreements with developers -- and our CI/CD tooling checks they are in place upon commit using the **LFX EasyCLA tool**.

**Governance.** FINOS provides, monitors, and helps (gently) enforce "rules of the road" to foster community, promote contribution, and encourage meritocratic development based - all in compliance with regulated industries requirements and sensitivities. See our **policies**

# The Open Source Enablement Journey

**Participate**
**in the FINOS Community**

Attend project meetings, consume and contribute to FINOS open source projects to address **technology** and **business** use cases:

**Tech-oriented projects**
- **Open Source Readiness**
- **Innersource**
- **Git Proxy**
- Interoperability
- Cloud Compliance

**Business-oriented projects**
- Object definitions: Financial Objects
- Reference Data: Securities, Currencies
- Data modeling: Legend
- Frameworks: Morphir
- Data Visualization: Perspective
- Compliance: Reg Innovation SIG

**Accelerate Open Source Readiness**
through FINOS Platinum or Gold membership

- **Training.** Platinum members enjoy free, unlimited access to Linux Foundation OSPO/ OSS training
- **Bespoke assessment.** Platinum and Gold members are eligible for bespoke Open Source Readiness assessments.

**Leverage**
**existing Resources**

- **Open Source Compliance Handbook**
- **Reference Open Source Policy**

**Drive Open Source in Financial Services**
through FINOS Platinum or Gold membership

- **Leadership.** Join financial institutions and technology firms on the FINOS Governing Board (Platinum and Gold members only)
- **Propose new projects**
- **Access the FINOS member network**

# Get Involved

**Browse the FINOS GitHub organization for good first issues and help wanted**

**github.com/finos**

**Join an upcoming SIG or project meeting**

**FINOS Community Calendar**

**Stay up to date**

**finos.org/news-and-events**

**Become a member**

**Complete the membership application and we'll be in touch shortly.**

**Questions? Email** help@finos.org

# The FINOS Community has never been busier

# FINOS joined the LF in early 2020

| MEMBER SUCCESS | PROJECTS | MARKETING |
|---|---|---|

**WHY WE JOINED THE LF?**

| TRAINING & EVENTS | GLOBAL TECH FOOTPRINT | LFX & SHARED INFRA | INFLUENCE UPSTREAM |
|---|---|---|---|

# … and it's been a fantastic journey!

**Tools**
- Member enrollment
- LFX Insights and org dashboard
- EasyCLA
- Crowdfunding

**Synergies**
- Pandemic resiliency
- Independence
- Complementary foundation models
- LF brand & global tech reach
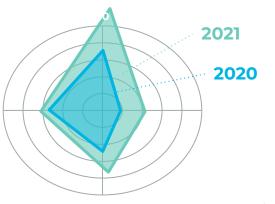- FSI experience and network ( e.g.OpenSSF)

**World class teams**
- Events
- LF Research
- Training

**+18 new members**

2021

2020

**+10 new projects**

THE LINUX FOUNDATION

+

FINOS

Fintech Open Source Foundation

# FINOS Membership benefits and tiers

*Anyone can consume, participate and contribute to FINOS projects, but, amongst many other benefits, only Members can propose new projects & sit on the Board.*

# How FINOS Delivers Value to its Members

FINOS members are **essential to the success of the Foundation** and are **instrumental in steering the direction** of open source in financial services. Our Members benefit from:

| | | | | |
|---|---|---|---|---|
| **Access and network**<br><br>Access the Financial Services developer and decision maker community | **Standardization**<br><br>Work with financial services customers **once** (in the open) instead of building customizations for every customer | **OS Commoditization**<br><br>Disrupt a locked-in industry through Open Source commoditization and open core models | **Compliance-as-code**<br><br>Collaborate with industry leaders - and increasingly with regulators - to build compliance-as-code implementations | **Cut technology TCO**<br><br>Mutualize cost on vast amount of non-differentiating financial services technology |
| **Governance & Legal**<br><br>Leverage FINOS governance and legal support enabling banks to safely collaborate in the open | **Flexibility & Interoperability**<br><br>Achieve interoperability with other vendors by driving standards and reduce concerns for vendor lock-in | **Talent acquisition and retention**<br><br>Lead in the open source space, enabling your developers to participate in open source projects and attracting top talent | **First-mover**<br><br>Position your technology as part of the reference architecture for fintech OSS. Only FINOS Members can propose new Projects. | **Embrace a modern development workflow**<br><br>Use and learn from the FINOS Open Developer Platform |

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finos.org

# Member Benefits: Brand and Networking

| MEMBER BENEFITS | | PLATINUM | GOLD | SILVER | NON-MEMBER |
|---|---|---|---|---|---|
| **FINOS Governing Board seat** | *Meet and learn from leaders of finance and tech companies to drive the direction of the Foundation* | Dedicated representative on the Governing Board, driving oversight over direction of the Foundation. | Participate in elections for a board representative every three Gold Members (1 year position) | Participate in elections for a board representative for the whole Silver tier (1 year position) | None |
| **Brand positioning** | *Members enjoy positioning in FINOS announcements, web properties and collateral* | Central positioning on website and collateral. Dedicated announcement upon joining and FINOS quote on Member-led press release. | Logo on website and collateral. Optional announcement upon joining and FINOS-provided quote for Member led-press release. | Logo on website and all collateral. Bundled announcement with other Silver Members. | Pending active contributions and releases. |
| **Press Releases, Case Studies, Newsletters, blogs and more** | *We use a number of tools to highlight participation in our projects and community.* | Propose topics and participate in press releases and case studies | Participate in press releases and case studies by FINOS invitation | Participate in press releases and case studies by FINOS invitation | Pending active contributions and releases |
| | | Relevant achievements highlighted in newsletter. | Relevant achievements highlighted in newsletter. | Relevant achievements highlighted in newsletter. | |
| | | Blog posts welcome (subject to FINOS approval) | Blog posts welcome (subject to FINOS approval) | Blog posts welcome (subject to FINOS approval) | |
| **Access to Member network** | *FINOS provides access to a Member only list and helps Members socializing collaboration ideas* | FINOS leads socialization with Board and Members distribution lists, hosting a dedicated roundtable when applicable | FINOS leads socialization with Members-only distribution list. | Member leads socialization with Member-only distribution list | None |

# Member Benefits: Events

| MEMBER BENEFITS | | PLATINUM | GOLD | SILVER | NON-MEMBER |
|---|---|---|---|---|---|
| **Members meeting** | *Bring members together to openly discuss existing projects and new opportunities.* | Free attendance (unlimited) | Free attendance (7 individuals) | Free attendance (4 individuals) | None |
| | | Preference given to speaking requests | Preference to speaking requests on FINOS projects | Preference to speaking requests on FINOS projects | None |
| **Open Source Strategy Forum (OSSF)** | *Only industry event at the cross section of finance, open, source and tech, providing unparalleled content and networking.* | Free attendance(unlimited) and 30% sponsorship discount | Free attendance (7 individuals) and 30% sponsorship discount | Free attendance (3 individuals) and 30% sponsorship discount | Paid attendance |
| | | Preference given to speaking requests | Preference given to speaking requests on FINOS projects | Preference given to speaking requests on FINOS projects | Submit speaking requests through standard CFS |
| **Meetups** | *Frequent, interactive, community focused events on industry relevant topics* | Free attendance | Free attendance | Free attendance | Paid attendance |
| | | Co-hosting & presenting opportunities | Co-hosting & presenting opportunities | Co-hosting & presenting opportunities | Presenting at FINOS invitation only |
| **Webinars** | *Anyone can attend but members can co-host and propose topics* | Attend | Attend | Attend | Attend |
| | | Co-host and present | Co-host and present | Co-host and present | Present by exception |
| **Industry Events** | *Participate in interactive discussions with FINOS at industry events* | By FINOS invitation | By FINOS invitation | By FINOS invitation | By exception |

# Member Benefits: Dedicated Member services

| MEMBER BENEFITS | | PLATINUM | GOLD | SILVER | NON-MEMBER |
|---|---|---|---|---|---|
| **Open Source Readiness (OSR)** | *Access a variety of open source tools and benefit from our team's deep experience with open source in regulated industries* | Bespoke readiness assessment report and recommendations | Self-serve readiness assessment survey | Self-serve assessment survey | Self-serve assessment |
| | | Dedicated time with our OSR lead (6 hours) | Dedicated time with our OSR lead (2 hours) | Dedicated time with our OSR lead (1 hour) | None |
| | | CCLA execution assistance (unlimited) | CCLA execution assistance (By exception) | CCLA execution assistance (By exception) | |
| **Project formation & pilot support** | *We help our Members successfully identify, nurture and pilot open source projects* | Can propose new projects and socialize them in formation stage | Can propose new projects and socialize them in formation stage | Can propose new projects | Can contribute to existing projects |
| | | Project formation & open sourcing best practice support | By exception | None | None |
| **Member Success** | *Leverage our member success team to identify opportunities and make the most of your membership* | Bespoke member status reports (semi-annually) | Bespoke member status reports (annually) | Access to LFX Insight Organization Dashboard (beta) | None |
| | | Member success meetings (semi-annually) | Member success meetings (annually) | N/A | None |
| **Member Events** | *FINOS presentations or stands at your events - from team meetings to internal conferences* | Bespoke presentations FINOS resource(s) on-site Promote events on our website/ social media (unlimited) | Bespoke presentations By exception Promote events on our website/ social media (4 max) | By exception None Promote events on our website/social media (2 max) | By exception None At FINOS discretion |
| **Training** (new!) | *FINOS members enjoy premium access to LF Open Source Training and Certification* | Enterprise wide license to the OSS Best Practices catalog. 50-seat, annual subscription to eLearning courses | 50-seat, annual subscription to eLearning courses. Volume discounts for LF training and certification based on LF tier. | Volume discounts for LF training and certification based on LF tier. | None |

# Member benefit zoom-in: Projects

Yes, anyone can consume and contribute to existing FINOS projects.
But **only FINOS Members can propose new projects**!

Propose **new** Projects

**Socialize** project proposals with the FINOS member community

*Member-only channels*

*Webinars*

*Pilots / Forming stage*

*FINOS hosted instances*

**Vet industry interest** before open sourcing projects

**Garner early contributors and consumers**

Consume & contribute to FINOS projects

Consume, contribute to and propose new FINOS projects

**Anyone**

**FINOS Members**

## Member Success Stories

**Goldman Sachs: Legend**

Ahead of the Open Sourcing of Legend, FINOS set up a neutral Legend instance to run a pilot project with ~40 individual participants from Goldman Sachs, Deutsche Bank, Itau, RBC Capital Markets, Morgan Stanley, Gitlab and ISDA, among others.

**EPAM: Glue**

Ahead of the open sourcing of GLUE from our Silver Member **EPAM**, we ran a webinar and podcast and introduced the team to several buy-side firms.

**Morgan Stanley: Morphir**

Ahead of the contribution of Morphir into FINOS, we socialized the project with the FINOS community and organized a live demo with 22 participants from member firms.

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# FINOS Membership Tiers

## PLATINUM

### $200,000 / year

Geared towards large financial institutions; asset, wealth and fund managers; and large tech companies

## GOLD

### $50,000 / year

Targeted at market data providers, large ISVs and SIs, technology partners and exchanges.

## SILVER

### $10-30,000 / year

Silver membership fees scale based on # of employees: $10,000 for less than 20 employees, $20,000 for 20-99, and $30,000 for 100 or more employees

Suitable for startups, and small consulting firms with limited resources but an appetite to contribute

## ASSOCIATE

### No Cost

Restricted to government organizations, regulatory bodies, nonprofits and academic institutions

**Complete the <u>membership application</u> and we'll be in touch shortly!**
FINOS Members must also become Members of the Linux Foundation (at any tier). More info <u>here</u>.

*FINOS also has an **INDIVIDUAL SUPPORTER PROGRAM**, reserved for individuals who significantly contributed to Foundation projects, and emeriti who contributed to shaping FINOS with their thought leadership.*

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finos.org

# Linux Foundation Membership Benefits

All FINOS members must also become members of the Linux Foundation at any tier (more information here).
**Some** of the benefits your organization can take advantage of by being an LF member include:

## LEGAL

- **Conferences.** Join exclusive legal conferences including the annual **LF Legal Summit**, **LF Open Compliance Summit**, legal tracks at the **Open Source Leadership Summit**, and access the **bimonthly legal counsel calls**.
- **Ad-hoc support.** Engage with our open source compliance experts for **ad hoc discussions** ranging from potential new projects to internal program office structures and processes.

## STRATEGIC GUIDANCE

- **Best Practices.** Opportunity for your open source program office to participate in the **TODO Group (todogroup.org)** and **Open Source Security Foundation (OpenSSF).**
- **Introductions** to other Linux Foundation members and hosted projects of interest to expand business opportunities

## INSIGHTS

- **Leverage LFX Insights** to validate projects for investment, and track the activity and growth of projects you're already involved in.
- **Gain visibility** on your project's code pipeline and performance metrics. Ensure the health & viability of the open source projects you care about.
- **Showcase your organization's leadership** and subject matter expertise in the open source community

## TRAINING

- **Discounts.** Access discounted LF Training & Certification offerings. Check out the LF Course Catalog and use the quote tool to obtain your discounts.
- **Platinum ONLY.** Enterprise wide license to Open Source Management and Best practices curriculum

## EVENTS

- **Discounts** for Linux Foundation Events
- **Access** to exclusive, member-only events like the **LF member summit**

## MARKETING

- **Lead** sponsored webinars
- **Participate** in articles and press releases.

For more information, see the Linux Foundation Member Benefits

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finos.org

# Ready to join the FINOS family?

**Complete the [membership application](#) and we'll be in touch shortly.**

# FINOS By the #s

## 75

## 56
### OSS PROJECTS/SIGs

## PLATINUM

BMO

Citi

GitHub

Goldman Sachs

J.P.Morgan

Morgan Stanley

RBC    UBS

WELLINGTON MANAGEMENT

## GOLD

AMERICAN EXPRESS

AXA

Capital One

Deutsche Bank

DISCOVER

Fannie Mae

Google Cloud

GitLab

Hedera

LSEG

Lloyds Banking Group

MEND

Microsoft

NatWest

publicis sapient

S&P Global

Red Hat

sonatype

SOCIETE GENERALE

Tradeweb

SYMPHONY

## SILVER

Adaptive

BNY MELLON

ComplianceCow

concourse LABS

Container Solutions

CANONICAL

controlplane

connectifi

Codethink

databricks

epam

CloudBees

Fidelity Investments

Genesis

interop.io

LEADING POINT

KINETIX

Luxoft A DXC Technology Company

MIRANTIS

orkes

PERCONA

Point72

REGnosys THE REGULATORY TECHNOLOGY PLATFORM

SCOTT LOGIC ALTOGETHER SMARTER

SMBC

Synechron

StormForge

turntabl

TRADE HEADER

## ASSOCIATE

air Alliance for Innovative Regulation

AlmaLinux

CRTA | ACTR

DATA FOUNDATION

EDM Council

ESOP

InterWork Alliance

mojaloop foundation

ISDA Safe, Efficient Markets

ISLA INTERNATIONAL SECURITIES LENDING ASSOCIATION

Interledger FOUNDATION

Mifos

OpenUK

RegTech

THE DIGITAL DOLLAR PROJECT

# FINOS By the #s

## 78 MEMBERS

## 56 OSS PROJECTS/SIGs

## PLATINUM

BMO
Citi
GitHub
Goldman Sachs
J.P.Morgan
Morgan Stanley
RBC
UBS
WELLINGTON MANAGEMENT

## GOLD

AMERICAN EXPRESS
AXA
Capital One
Deutsche Bank
DISCOVER
Fannie Mae
Google Cloud
Hedera
LLOYDS BANKING GROUP
LSEG
MEND
NatWest
NOMURA
Red Hat
S&P Global
SOCIETE GENERALE
sonatype
SUSE
SYMPHONY
temenos
Tradeweb
wipro

## SILVER

Adaptive
BNY MELLON
CANONICAL
connectifi
Container Solutions
ComplianceCow
controlplane
concourse LABS
CodeThink
databricks
epam
CloudBees
Finsemble
GitLab
Fidelity INVESTMENTS
Itaú
LEADING POINT
Glue42
Genesis
KINETIX
Luxoft A DXC Technology Company
MIRANTIS
orkes
Point72
PERCONA
Scott Logic
SMBC
REGnosys THE REGULATORY TECHNOLOGY PLATFORM
StormForge
Synechron
turntabl

### ASSOCIATE

air Alliance for Innovative Regulation
AlmaLinux
CRTA | ACTR
DATA FOUNDATION
EDMCouncil
ESOP
InterWork Alliance
mojaloop foundation
ISDA Safe, Efficient Markets
ISLA INTERNATIONAL SECURITIES LENDING ASSOCIATION
Interledger FOUNDATION
Mifos
OpenUK
RegTech
THE DIGITAL DOLLAR PROJECT

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