FINOS
Fintech
Open Source
Foundation

APAC Open Source in Fintech
Event Series

FINOS Introduction to FDC3

Andrew King - Principal Suite2Go
James McLeod - FINOS Director of Community
Riko Eksteen, Head of Desktop Strategy, Adaptive
Kris West, Director of Solutions Engineering, Cosaic
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.
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Over 30 member organizations and 300+ contributors collaborate to develop software, deliver standards and drive collaboration in the open.

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

FINOS co-hosts the Open Source Strategy Forum with the Linux Foundation, the only Open Source conference solely focused on financial services and regulated industries.
A non-profit driving Open Innovation in FinServ

**Drive** a worldwide community to collaborate in the **open** (source, standards, services, policies) to accelerate **innovation** and optimization **in financial services** technology and workflows.
A Diverse Community of Members

Deutsche Bank
The Financial Services firm
Deutsche Bank contributed Plexus, production ready interoperability framework part of Autobahn

Business value
Reduce TCO through mutualization of non differentiating IP
Listen to customer requirements and move past single dealer platforms
Access an engaged community and compliant OSS infrastructure

openfin
The Fintech provider
OpenFin contributed to FINOS Hadouken, the open source version of the OpenFin platform

Business value
Reduce concerns for vendor lock-in
Achieve interoperability with other vendors, e.g. driving FDC3 standard
Leverage FINOS governance and legal support to enable banks contributions

redhat
The Open Source vendor
In 2017 Red Hat begins offering OpenShift as part of FINOS Open Developer Platform

Business Value
Offer a best of breed developer environment to fintech developers
Position its technology as part of the reference architecture for fintech OSS
Improve product collecting financial services industry requirements
FINOS Community by the Numbers

**PLATINUM**
- Accenture
- Citi
- Goldman Sachs
- GitHub
- J.P. Morgan
- Morgan Stanley
- Nomura
- Symphony
- RBC
- UBS

**GOLD**
- CapitalOne
- HSBC
- IHS Markit
- Intel
- openfin
- Red Hat
- REFINITIV
- SUSE
- Tradeweb

**SILVER**
- Adaptive
- BNY Mellon
- CloudBees
- Cloud9
- Diffblue
- Epam
- GitLab
- Gk
- Glue42
- Itau
- NearForm
- Scott Logic
- Tradeweb

**ASSOCIATE**
- Alliance for Innovative Regulation
- ISDA
- InterWork Alliance
- Safe, Efficient Markets

**15**
Active Open Source Projects and SIGs

**24**
Incubating Open Source Projects and SIGs

**350+**
Contributors

**39**
Corporate and Associate Members

[landscape.finos.org/](landscape.finos.org/) [finos.org/members]
We help financial firms realize OSS benefits...

- **Reduce** overall software TCO through mutualization
- **Improve** time-to-market and software quality
- **Attract and retain** talent from a broader pool
- **De-risk** software investments, reducing vendor lock-in and fostering internal and external reuse
- **Simplify** workflow integration and ecosystem interoperability
...and tech firms to collaborate with this industry...

Provide a neutral forum for open source efforts with strong **disruption potential** of a highly locked-in industry.

Build a trusted board-level collaboration with **industry decision makers**.

Frictionless engagement of **financial services developers** who already are **actively contributing to FINOS in full compliance**.

“**Build once**” approach to **financial technology solutions** by collaborating with several industry leaders.

Learn about high value industry-wide business challenges to **inform and validate product and project roadmaps**.
Our goal: Enable Open Source in Financial Services

- Cost Savings
- Efficiency
- Financial Inclusion
- Talent
- Global Reach

Financial Institutions
Fintech Vendors
Regulators
Tech Firms
It’s a positive sum-game

Banks
✓ Digital transformation
✓ Cost savings
✓ Efficiency
✓ Talent
✓ Vendor lock-in reduction

Fintech vendors
✓ Level playing field
✓ OSS commercialization
✓ Faster go to market
Incumbent vendors commoditization

Big tech/CSPs
✓ Grow Market penetration
✓ Commoditized OSS offerings
✓ Customer intelligence in a regulated industry

Regulators
✓ Transparency
✓ Efficient enforcement
✓ Talent
2020 Q3 was our busiest quarter ever!

Our open source project landscape continued to grow...

- 4 new projects incubating in Q3
- 2 new SIGs (DevOps and Reg)
- 62% new projects contributed by FSI in 2020

Steady social and web growth
Launched FINOS Community repository
Web and Github update to reflect new governance and Associate Membership

Community Spotlight recognizes community contributors (4 editions so far) in newsletter
Virtual Meetups over 1000+ registered/attended in 2020 (see archive)
FINOS Podcast Steady increase in plays week on week
OSR Guest Speakers & All Community Calls continue to attract new participants

Press Releases promoted new contributions and chair/co-chair; Legend launch (scheduled)
OSSF launched with LF including LF keynote press release, FINOS and LF promotion.
OSS EU - FINOS Mini Summit scheduled leveraging LF events and network
Interviews & presentations for FINOS to speak, including Financial Inclusion & ESG

... and we kept open source in financial services in the news
The “biggest” quarter in our history ...

Keep an eye on our COMMUNITY DASHBOARD at https://metrics.finos.org/goto/7adfc78f97c9aa712b191e69eba8fe91
Key 2020 Initiatives

**OPEN REGTECH**
- Advanced talks with Regulators
- Reg-oriented collaboration on FINOS Projects (Morphir, Legend, Waitz, ...)

**GLOBAL FOOTPRINT**
- APAC growth with LF Team
- LatAm Development (Itau)

**RETAIL BANKING EXPANSION**
- Open Banking
- Increased contributor base

**ECOSYSTEM & PARTNERSHIPS**
- FINOS to strengthen collaboration with industry associations and consortia
- Associate membership
  - EDM Council for Cloud
  - Alliance for Innovative Regulation
  - Interworks Alliance

**OSSF 2020**
- OSSF is the sole conference dedicated to driving collaboration and innovation in financial services through OSS. Now joining forces with LF. Register [here](#).
A brief history of FINOS

2015
Symphony Software Foundation (SSF) created by several investment banks as Founding Members

2016
Deutsche Bank contributes Plexus
Open Source Strategy Forum (OSSF) is launched

2017
Goldman Sachs, Livewire, Paragon contributions become the open core of Symphony

April 24, 2018
SSF becomes FINOS, the home for open source collaboration in financial services

2018
FINOS launches 8 collaborative Programs in different areas of the industry
FDC3 1.0 drafted
FINOS support expands from FSI and OSS tech industries
OSSF goes global!

2019
FINOS joins the Linux Foundation

Present
FINOS joins the Linux Foundation
OSSF goes virtual!

Other events:
- JPMorgan Chase Perspective
- FDC3 1.0 launched with broad vendor support
- FINOS Open Source Readiness Project accelerates industry OSS contributions
- Over 400 people join the largest OSSF to date
- FINOS launches 8 collaborative Programs in different areas of the industry
- FINOS support expands from FSI and OSS tech industries
- OSSF goes global!
2020 will be a bright year for OSS in Financial Services

FINOS joins the Linux Foundation to achieve global expansion
The value of a broader tent

FINOS Fintech Open Source Foundation + THE LINUX FOUNDATION

- Global Expansion
- Training/Certification
- Events and Infrastructure
- Improving Upstream
The Value of FINOS and LF Joining Forces

**MEMBERS**

**GROWTH**
The Linux Foundation mission is supported by over 1500 corporate Members, many of which come from or serve the financial services industry. FINOS will be closely working with The Linux Foundation to grow the Membership base amongst global financial services firms and technology vendors.

**SYNERGY AND FOCUS**
Additionally over 75% of current FINOS funding comes from firms already Member of the Linux Foundation, hence we’ll be able to identify synergies in terms of internal focus and budget in most of our current Members.

**PROJECTS**

**NEW PROJECTS**
As the Financial Services vertical of the Linux Foundation, FINOS will be involved in several opportunities for new industry projects that are currently hosted or prospectively looking to be contributed by the Linux Foundation. More to come soon!

**EXISTING PROJECTS**
Existing projects from FINOS will gain broader visibility and will have a chance to more closely collaborate on a standard governance basis with upstream projects in the Linux Foundation, e.g., Electron, Node.js, Kubernetes and Hyperledger.

**TRAINING AND CERTIFICATION**
FINOS Members will be able to tap into dozens of existing courses on open source and technology. Also FINOS will be able to stand up technology / people certification programs.

**EVENT MANAGEMENT**
The Linux Foundation has a stellar event management team which will be organizing Open Source Strategy Forum moving forward and will merge their Fintech event with it.

**OSS READINESS & INFRA**
FINOS will be able to leverage a battle-tested open source collaboration infrastructure as well as join forces with Open Source Readiness existing efforts like the TODO group and OpenChain.

**COMMUNITY**

**CONSOLIDATION**
Being the sole umbrella for Open Source in financial services reduces Community fragmentation and allows the whole industry to collaborate on common projects and unified governance.

**CROSS-POLLINATION**
The Linux Foundation engages with hundreds of thousands of open source savvy developers worldwide: this will bring new contributors to FINOS and support the mission of cross-pollinating the financial services industry with the “open source way”.

**SUPPORTING SERVICES**

**COMMUNITY ENGAGEMENT**
The Linux Foundation offers an advanced platform and several channels to grow community, including advanced analytics, project funding and mentorship programs.
Why Open Source Code and Practices

**WHY**
should I or my organization be using open source and open source practices?

**HOW**
can and should I engage in open collaboration in a financial services?

**WHAT**
makes sense to contribute or collaborate on based on my individual goals and corporate strategy?

Source: SIMON-SINEK
Attributes of Open Source

**COLLABORATION**
- Collective ownership
- Structured and collective-use oriented development
- Mutualization and re-usability

**TRANSPARENCY**
- Transparency
- Meritocracy

**INNOVATION**
- Rapid prototyping
- Engine for sustained innovation
- Talent attraction and retention
Need Proof? Open = Disruptive innovation
How FINOS enables Project Success

Technical Infrastructure
- Open Developer Platform
- Security Scanning
- Migration support

Community
- Consumer and contributor growth
- Product management and marketing
- Events and Community awareness

Legal & Governance
- Neutrality
- Open Source Readiness
- IP Validation
- Transparent Governance

Business & Technical Value
Solving Industry-wide challenges
# FINOS featured projects

<table>
<thead>
<tr>
<th>Legend</th>
<th>Perspective</th>
<th>Waltz</th>
<th>FDC3</th>
<th>Morphir</th>
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<tbody>
<tr>
<td>- Data modeling language and environment with wide utility across pricing, risk, reporting and more contributed by Goldman Sachs.</td>
<td>- Interactive visualization component for large, real-time datasets, used to build reports, dashboards and more, contributed by JP Morgan.</td>
<td>- Allows you to visualize and define your organisation’s technology landscape. Think of it like a structured Wiki for your architecture.</td>
<td>- Open standard enabling plug-and-play interoperability on the financial desktop, initially contributed by OpenFin.</td>
<td>- 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.</td>
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**References**

- [FINOS incubating](https://github.com/finos/legend)
- [FINOS active](https://github.com/finos/perspective)
- [FINOS active](https://github.com/finos/waltz)
- [FINOS active](https://github.com/finos/FDC3)
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## FINOS Software Projects

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<td>- 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.</td>
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<td><strong>CLOUD</strong></td>
<td>- The Cloud Service Certification project, contributed by JPMorgan, is following an open, code-first, collaborative process to mutualize - among FIs and vendors - the cost of cloud control interpretation and implementation.</td>
</tr>
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<td><strong>INTEROPERABILITY</strong></td>
<td>- FDC3 is an open standard that enables plug-and-play interoperability on the financial desktop.</td>
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<td>- Plexus Interop aims to define an open standard for desktop application interoperability and provides reference implementation of this standard.</td>
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Check out the full list of FINOS projects on the [FINOS Landscape](#).贡献 to our Github organization. Get in touch with the Community through our mailing lists.
FINOS Data Projects

**DataHub**

**Project description.** DataHub is a set of python libraries dedicated to the production of synthetic data to be used in tests, machine learning training, statistical analysis, and other use cases.

**Current Focus.** Working with UBS to evaluate the project for cross collaboration and investment banking engineering use cases. Evaluating DataHelix synergies with the DataHelix project team.

**How to get involved.** DataHub can be cloned, installed and evaluated from the FINOS GitHub Organisation - [https://github.com/finos/datahub/](https://github.com/finos/datahub/)

**DataHelix**

**Project description.** The generation of test and simulation data is a challenging and time-consuming task. DataHelix addresses a specific challenge in the financial services industry and is also a useful tool for the generation of realistic data regardless of industry.

**Current Focus.** Working with Citi to evaluate DataHub synergies, with DataHelix being a kick starting test, learn and development tool. Standards between DataHub and DataHelix are being evaluated.

**How to get involved.** DataHub can be cloned, installed and evaluated from the FINOS GitHub Organisation - [https://github.com/finos/datahelix/](https://github.com/finos/datahelix/)

**Legend**

**Project description.** Legend is a data modeling language and environment contributed to FINOS by Goldman Sachs in November 2019. You can check out the Legend project site [here](https://github.com/finos/datahub/).

**Current Focus.** The pilot project was launched in January 2020 and is expected to conclude in Q3 2020. There are currently two working groups focusing on FX Options and Reference Data for Oil Swaps.

**How to get involved.** The Legend project concluded its pilot phase and the first wave of code will be open sourced in the Fall of 2020. Join the [legend@finos.org](mailto:legend@finos.org) mailing list and Legend Monthly meeting. Request access to the modeling instance at finos.org/legend.
Ready to join the FINOS open source community?
Five ways to start with the FINOS community

**EVALUATE**
What FINOS offers the FinServ developer

**CONSUME**
The Foundation’s open source projects, open standards, policies

**PARTICIPATE**
In existing Projects, Special Interest Groups or Events hosted by FINOS

**CONTRIBUTE**
A Feature Request, Bug Report, Pull Request, Support Question or Open Source Project to the Foundation

**LEAD**
A Project or Special Interest Group hosted by FINOS

https://www.finos.org/get-involved