### **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.



# **FINOS**

# 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 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



#### 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



#### The Open Source vendor

In 2017 Red Hat begins offering Openshift as part of FINOS <u>Open Developer Platform</u>

#### **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

accenture CITI Goldman Sachs GitHub J.P.Morgan Morgan Stanley **NO/MURA** SYMPHONY

PLATINUM



### SILVER

**Adaptive** > BNY MELLON Cosaic (Cloud9 G Al for Code <epam> 🕼 gk GLUE42 GitLab SCOTT LOGIC **NearForm** ALTOGETHER SMARTE ASSOCIATE InterWork Alliance for Innovative Regulation air Alliance Efficient

**15** Active Open Source Projects and SIGs

24 Incubating Open Source Projects and SIGs

> 350+ Contributors

**39** Corporate and Associate Members

**WBS** 

<u>landscape.finos.org/</u>

# 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** 

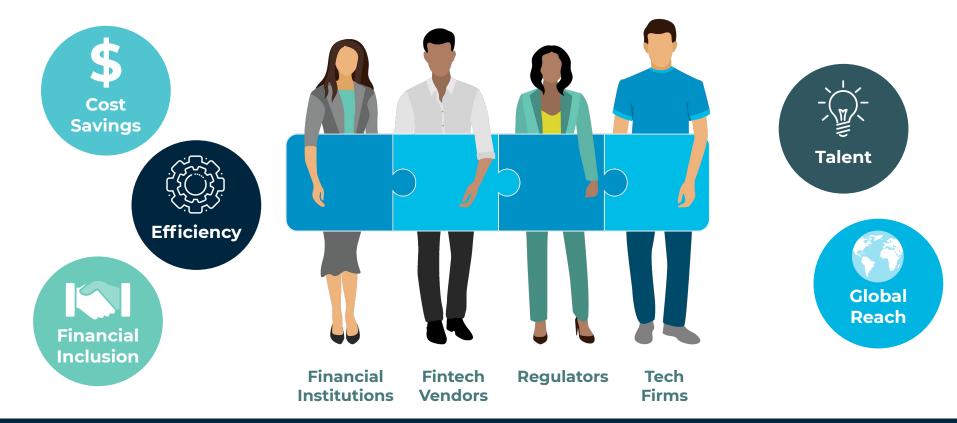


"Build once" approach to financial technology solutions by collaborating with several industry leaders



Learn about high value industry-wide business challenges to **inform and validate product and project roadmaps** 

# Our goal: Enable Open Source in Financial Services



# 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 commoditiza

Innovation Interoperability Data standardization Open Ecosystem Risk mitigation

### --- 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...



FINOS incubating

FINOS incubating

symphony-java-toolkit

FINOS incubating

**ÎEGEND** 



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 <u>Community repository</u>
Web and Cithub update to reflect new governance and <u>Associate Membership</u>





**Community Spotlight** recognizes community contributors (4 editions so far) <u>in newsletter</u> **Virtual Meetups** over 1000+ registered/attended in 2020 (see <u>archive</u>)

**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







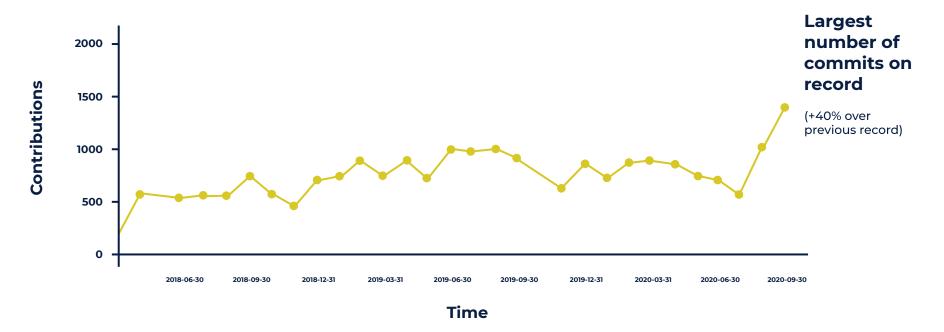


FINANCEMONTHLY





# The "biggest" quarter in our history ...



Keep an eye on our **COMMUNITY DASHBOARD** at <u>https://metrics.finos.org/goto/7adfc78f97c9aa712b191e69eba8fe91</u>

# Key 2020 Initiatives



**FINOS** 



- Advanced talks with Regulators
- Reg-oriented collaboration on FINOS Projects (<u>Morphir</u>, <u>Legend</u>, <u>Waltz</u>,...)

- - APAC growth with LF Team
  - LatAm Development (Itau)



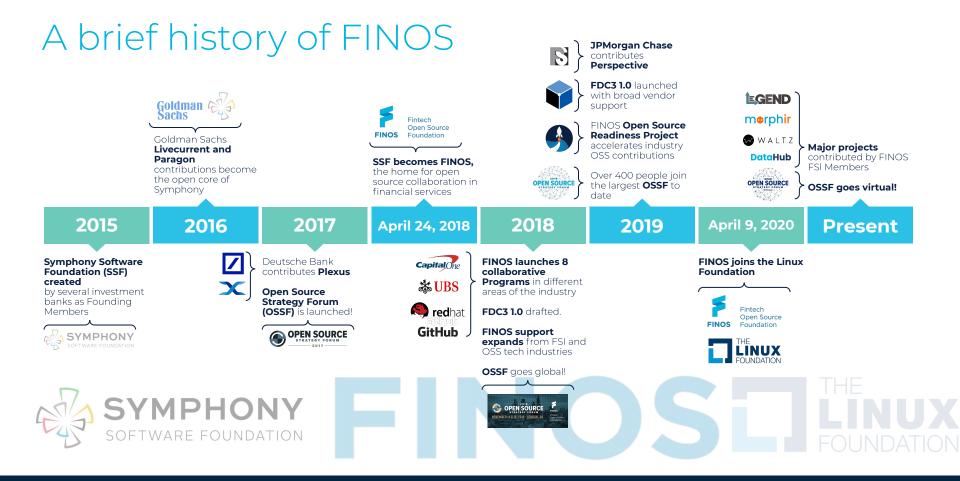
- Open Banking
- Increased contributor base

### **ECOSYSTEM & PARTNERSHIPS**

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



OSSF is the sole conference dedicated to driving collaboration and innovation in financial services through OSS. Now joining forces with LF. Register <u>here</u>



# 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



# 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.

#### 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

#### 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.

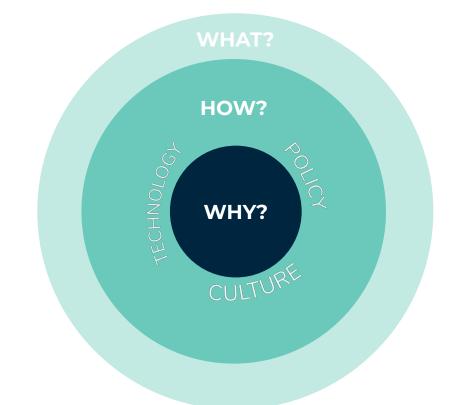
#### **OSS READINESS & INFRA**

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 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



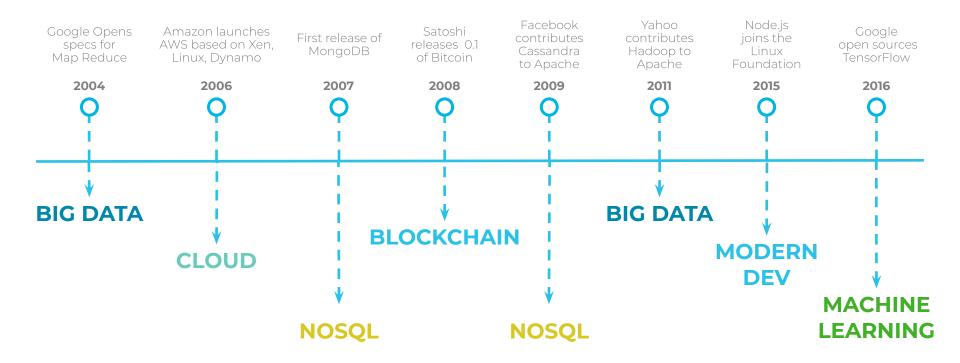
### INNOVATION

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











### morphir

### Legend

Data modeling language and environment with wide utility across pricing, risk, reporting and more contributed by Goldman Sachs.

### Perspective

Interactive visualization component for large, real-time datasets, used to build reports, dashboards and more, contributed by JP Morgan.

### Waltz

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

### FDC3

Open standard enabling plug-and-play interoperability on the financial desktop, initially contributed by OpenFin.

### 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.

# **FINOS Software Projects**

#### DATA VISUALIZATION



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



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

# DATA MODELING CLOUD

EGEND

language and visual modeling

environment contributed to

**morphir** 

system built on a data format

that captures an application's

domain model and business

logic in a technology agnostic

• Morphir is a multi-language

FINOS by Goldman Sachs..

• Legend is a data modeling

### 

:.. 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.

#### INTEROPERABILITY



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



Plexus Interop aims to define an open standard for desktop application interoperability and provides reference implementation of this standard.

Check out the full list of FINOS projects on the <u>FINOS Landscape</u>

Contribute to our Github organization

Get in touch with the Community through our <u>mailing lists</u>

FINOS Fintech Open Source Foundation

# FINOS Data Projects



**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/



**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/



**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 <u>here</u>.

**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 <u>legend@finos.org</u> 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





CONSUME



PARTICIPATE



### CONTRIBUTE

**LEAD** Project or Special

What FINOS offers the FinServ developer

The Foundation's open source projects, open standards, policies

In existing Projects, Special Interest Groups or Events hosted by FINOS A Feature Request, Bug Report, Pull Request, Support Question or Open Source Project to the Foundation

A Project or Special Interest Group hosted by FINOS

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

# **FINOS**

Fintech Open Source Foundation Join our Community at **finos.org** 

**○ )** in