



FINOS

**GROWING AN
OPEN SOURCE FOUNDATION
WITH BITERGIA ANALYTICS**

2019



Bitergia



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Visit bitergia.com for information about
Bitergia's services and email
info@bitergia.com to schedule a demo.



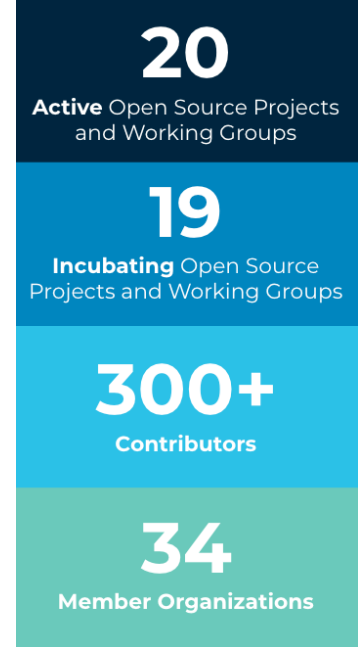
ABOUT FINOS

The Fintech Open Source Foundation (“FINOS”) fosters a community for creating open source solutions for financial services. FINOS provides an independent setting to design, produce, and deliver software and standards that address common industry challenges and, in turn, drive innovation.

FINOS has more than 30 members (2019), including Citibank, Deutsche Bank, GitHub, Goldman Sachs, HSBC, JPMorgan, Morgan Stanley, Nomura, RBC, Symphony, and UBS.

FINOS has 20 active open source projects, 19 incubating open source projects, 300+ contributors and 34 member organizations which focus on common fintech and banking business problems, use cases, themes, and open source technology opportunities.

Learn more about FINOS at www.finos.org



GOVERNANCE-BY-CONTRIBUTION

As an open source foundation, FINOS strives for transparency, neutrality, and meritocracy in the foundation governance, amongst its 100+ projects and project communities. FINOS actively tracks community contributions, whilst making the analytics public, recognizing most active contributors and incentivizing community participation.

FINOS, as you would expect from a financial services foundation, has more governance and policies than other foundations. We have an "Active Participation Policy," which we also refer to as "Governance by Contribution." This policy defines activity and incentivizes contributors to seek active roles in our projects. We use insights from Bitergia Analytics about member contributions to determine which logos we show, how prominently we show them on our website, who earned voting rights in projects, and who we give awards to as most active contributors.

June, 2019

Gabriele Columbro
Executive Director
FINOS

FINOS has several **goals** related to governance-by-contribution, including:

- Identify the level of activity of members.
- Reward the most active contributors.
- Determine voting rights in governance bodies based on level of contributions.

Questions:

- Who are the most active contributors as individuals and member organizations?
- What projects are they active in?

At the FINOS hosted Open Source Strategy Forum, we recognize the most active contributors in our community. For this, I looked at the data from the past year to see which individual contributors were most active. I also look at the member organizations to see how active they are.

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During 2019, Bitergia created a customized integration to address FINOS's needs.

Custom Development: Import FINOS Meetings

An important contribution is attendance to FINOS meetings. This information is not found in typical open source collaboration platforms, but FINOS tracks attendance separately. Bitergia built an import to get the attendance information into the same dashboard with all other contributions.

WG meetings

95

of Working Group meetings

PMC meetings

73

of PMC meetings

During 2019, Bitergia created a customized dashboard with visualizations that address FINOS's needs.

Metric Visualization - Activity by Individual:

FINOS needed the ability to measure activity by individual community participants in both working groups (more focused on idea development, deliberation; bulk of activity in bi-weekly or monthly online meetings) and projects (more focused on code development, bulk of activity in the form of pull request and issues in GitHub and GitLab). Bitergia Analytics shows this information in two tables with the ability to sort by different types of activity, such as the number of emails and the number of commits.

Project Active Participation (Individuals)

Filter...

Contributor	#PRs raised	#Commits	#Issues raised	#PRs Merged	#Emails	Participation
	131	34	0	0	1	Active
	90	436	26	80	0	Active
	85	110	0	10	0	Active

Working Group Active Participation (Individuals)

Filter...

Participant	Emails	#PRs/Issues raised	#Commits	Wiki Contribs	Meetings attended	Participation
	152	3	2	6	25	Active
	45	0	0	0	7	Active
	32	0	0	0	7	Active
	31	1	16	2	0	Active
	25	23	9	108	30	Active
	19	2	6	0	5	Active



To provide information about individuals and organizations, Bitergia Analytics manages affiliation information and merges identities when contributors use different aliases or email addresses.

Metric Visualization - Activity by Organizations:

The Activity by Organization visualization combines all activities of individuals working for the same organization and shows their collective activity. Again, one table shows activity in projects while another table shows activity in working groups.

Project Active Participation (Orgs) Search

Organization	#PRs raised	#Commits	#Issues raised	Merged PRs
[blurred]	0	0	0	0
[blurred]	7	22	12	17
[blurred]	151	266	0	156

Working Group Active Participation (Orgs) Search

Contributing Org	Emails	#PR/Iss raised	#Commits	Wiki Contribs	Meetings attended
[blurred]	6	0	0	73	3
[blurred]	5	11	28	0	0
[blurred]	7	0	0	0	7
[blurred]	6	0	2	3	1
[blurred]	118	13	5	67	16



Metric Visualization - Activity Across Data Sources:

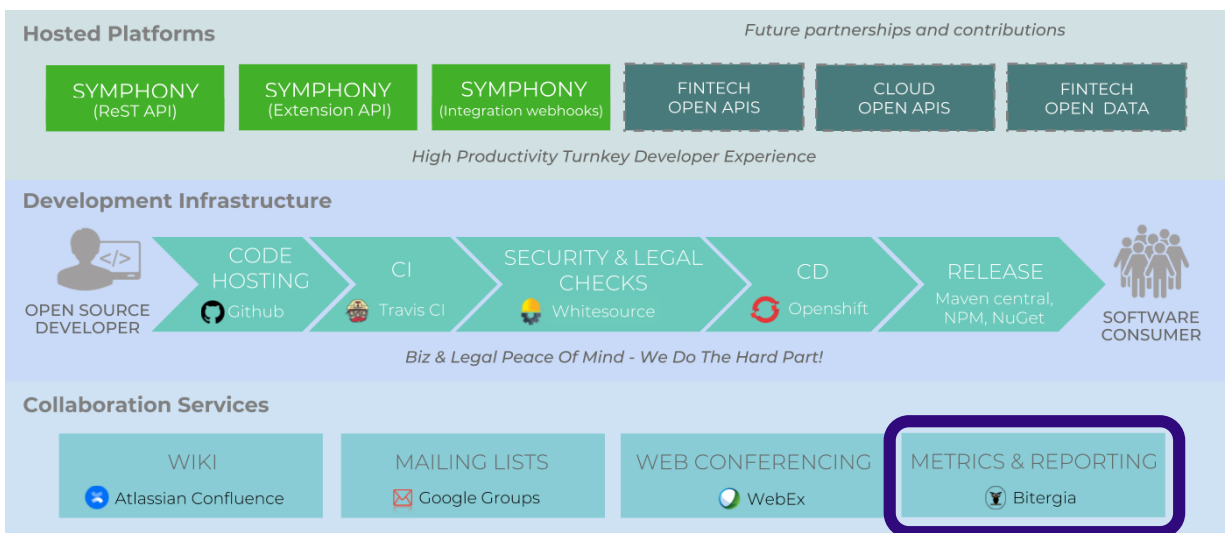
The *Activity Across Data Sources* visualization shows the most active Contributors and Contributing Organizations. This information provides insights into the types of contributions an individual or organization is focused on.



GROWING PROJECTS WITH ANALYTICS

FINOS is committed to growing its projects. Peter Drucker’s famous insight, “You cannot improve what you don’t measure,” is a major driver for applying a scientific approach to growing projects.

FINOS has made metrics and analytics a core service it provides to its projects through the Open Developer Platform (ODP).



FINOS has several goals related to providing metrics to its projects, including:

- Provide community members with insights on projects.
- Demonstrate publicly how active projects are.

Questions:

- Which are the most active projects?
- How well does each project address contributions?

We believe in the paradigm of "you cannot improve what you do not measure". We hired Bitergia to provide measurements on our open source communities. On our website, we link to the Bitergia Analytics dashboards to show our members and communities the same data that we are looking at. This helps grow our projects because this quasi-real-time information helps analyze the impacts of releases or marketing campaigns. Projects are empowered to make adjustments based on those insights. In a way, this gamifies contributing to projects.

June, 2019

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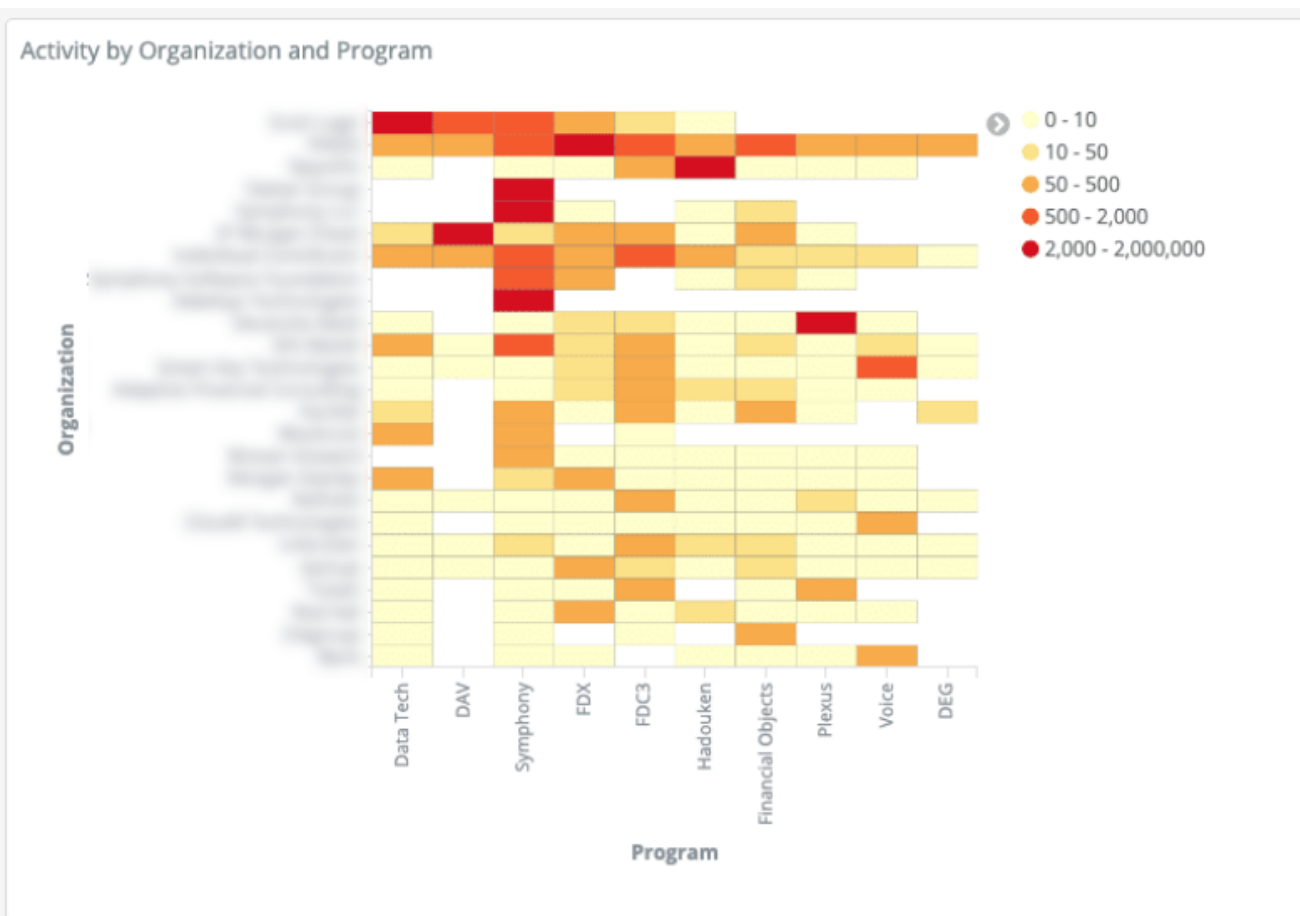
Metric Visualization - Most Active Projects:

The Most Active Projects visualization is a word cloud where the size of a project's name is determined by the level of activity in that project, which is calculated from commits to project repositories.



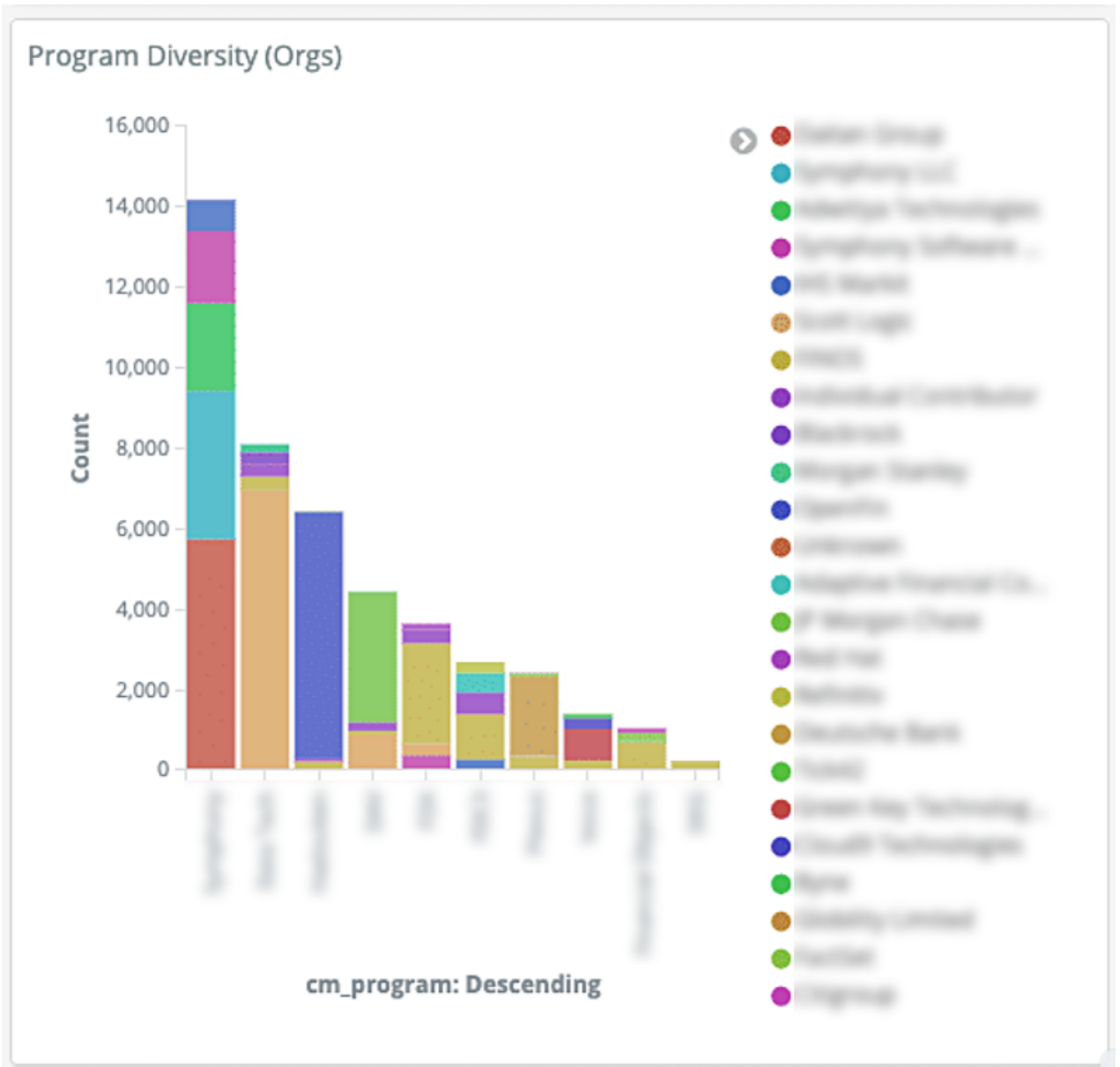
Metric Visualization - Activity by Organization

The Activity by Organization visualization is a heat map that shows how involved the most active organizations are within the foundation. This is important to know for FINOS to identify lack of organizational diversity and to see where organizations focus themselves.



Metric Visualization - Diversity by Organization:

The Diversity by Organization visualization is a bar chart with the number of contributions made to the Foundation. Contributions are colored based on the organization that each contributor is affiliated with. Diversity is shown with many different colors in one bar. Lack of diversity is shown when a bar is dominated by one color.



ABOUT BITERGIA ANALYTICS PLATFORM

Bitergia Analytics is specialized in analyzing software development projects and its core platform is 100% open source. It collects data from 30+ different data sources related to collaborative and social software development and allows you to identify contributors and organizations for more detailed reporting and improve decision making

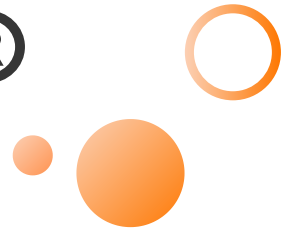
- Track growth, performance, and progress
- Discover influencers & analyze trends in your project
- Understand code review processes, ticketing, and issues
- Cross, combine, and visualize data
- Easily analyze comments, forums, and chats

ABOUT BITERGIA®

Bitergia® helps companies improve the ROI of their software development projects by providing tools and knowledge to improve decision making. It specializes in analyzing software development projects and its core platform is 100% open source.



ABOUT BITERGIA®



Bitergia® is a company with 15+ years experience in research focused on collaborative software development methodologies and software development quality models. Our specialized team has been working with a wide variety of companies and organizations that had a need for actionable insights and better understanding of software development community and processes.

