

LF AI & Data

Ibrahim Haddad, PhD

Introduction to the Linux Foundation

The Linux Foundation's goal is to create the greatest shared technology investment in history by enabling open collaboration across companies, developers and users.

We are the nonprofit organization of choice to build ecosystems that accelerate open source technology development and commercial adoption on a global scale.

We are behind some of the most critical projects in the world

Security



Networking



Cloud



Automotive



Blockchain



Edge/IoT



Web



AI



Film



CI/CD



Energy



Hardware



Standards



Building large, sustainable ecosystems requires collective resources

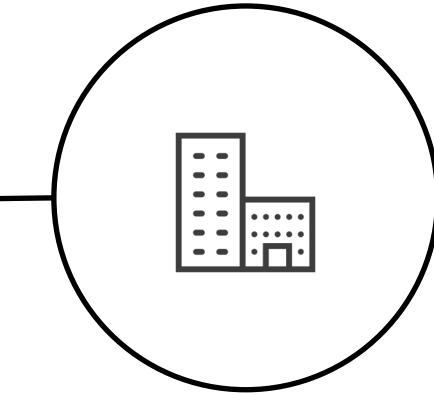
2,000+

Members From
41 Countries



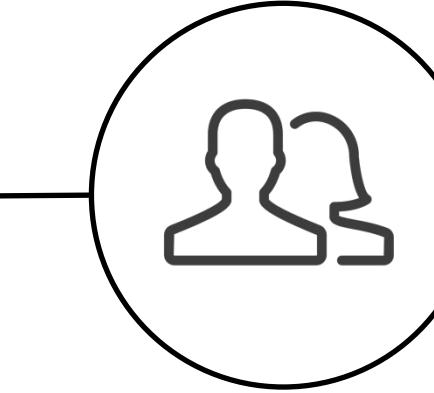
100%

of Fortune 100
Tech & Telecom



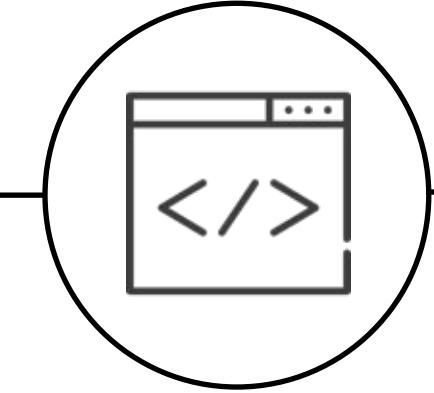
242,960+

Developers
Contributing Code



730+

Critical Open Source
Projects



\$54.1B

Shared
Value



The Linux Foundation is a critical part of modern technology

31.2M
Lines of Code
Added Weekly

20M
Lines of Code
Removed Weekly

236,040
Contributing
Developers

19,442
Contributing
Companies

12,290
Repositories

10.4M
Commits

1.1M
Pull Requests

735,760
Builds Monitored

815,110
Logged Issues

4.6B
Container
Downloads

5.1M
Chat
Messages
Sent

4.4M
Email
Messages
Sent

10,334
Scanned
Repositories

236,499
Vulnerabilities
Detected

21,597
Recommended
Fixes

13,802
Vulnerabilities
Fixed

31,496
CLA
Contributors

26,998
Community
Meetings

For an Enterprise, Open Source is about Business Strategy

Open Source Strategic Impact



- Accelerate the development of open solutions
- Provide an implementation to an open standard



- Commoditize a market
- Reduce prices of non-strategic software assets
- Share development costs



- Drive demand by building an ecosystem for products & services



- Partner with others
- Engage customers
- Strengthen relationships with common goals

Increase market opportunity

- If a certain part of our stack became a commodity and every player adopted it, where can we get first mover and industry leader advantages to expand our market opportunity?
- Are there open, industry adopted southbound or northbound APIs to allow for interoperability and/or data egress/ingress?
- Where can we increase customer value with offerings of additional data services, analytics, management, and security? What industry open source base stack can facilitate this?

Take market share through de facto standards

- Where in the stack can we disrupt a market leading proprietary implementation with a standardized open source implementation that creates a market opportunity for us?
- Which peers, partners and suppliers, do I need to involve to ensure an open source effort becomes adopted industry-wide?
- Where can a customer or competitor use open source to create a de facto standard that forces us to change our product development roadmap and R&D/IT investments?

Decrease costs

- Where is there opportunity to externalize commodity R&D through shared open source development?
- Where is the client shouldering duplicative costs in non differentiating vendor solutions and how we can we use open source to move our relationship up the stack while removing duplicative R&D?

**Strategy is Built Upon Category Creation
through EcoSystem Formation and
Industry-Wide Standardization on
Open Source Software**

Open Source enables companies to reshape their industry value chain in ways that are both neutral (to create **Industry Platforms**) and that drive their own competitive goals (through active **Stakeholdership**)

Old World “Standards” =
Specifications with
Divergent
Implementations

New World Standards =
Industry-wide adoption
of shared technology
development and critical
deployment alongside
specifications to become a
de facto platform

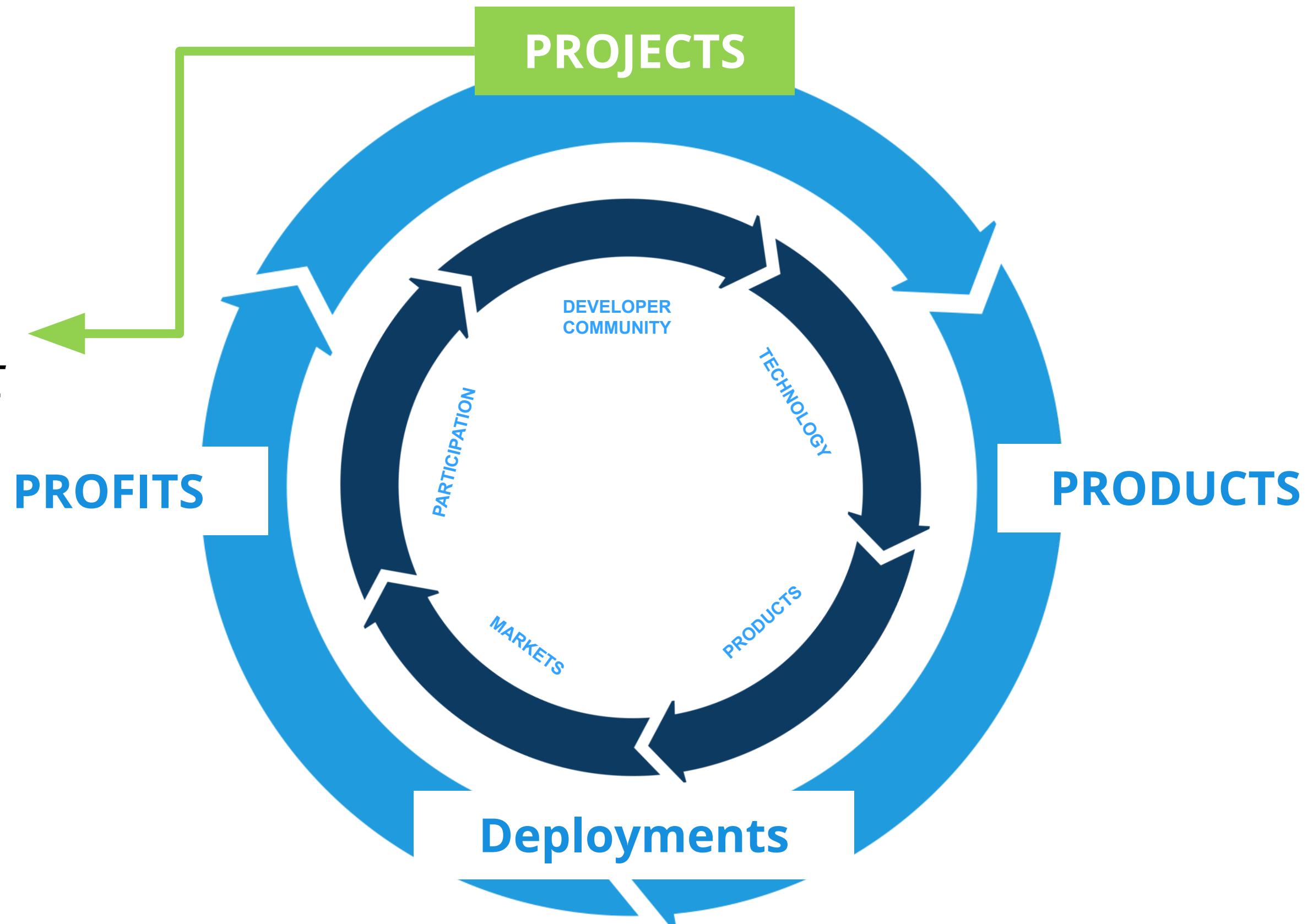
Stakeholders invest in active, multi-year
Membership to see hundreds of millions,
sometimes billions, in return by collecting
value from **Industry Platforms**

“You are either at the table or on the table.”
—Anonymous Executive



Open Source Journey – First Came Projects

Successful Open Source Development depends on the complete life cycle of projects, products that market will adopt and deploy



Our Role Has Been Recognized Alongside Tech Titans

- › “This category looks at those companies, associations and projects that have inspired development and IT shops to build upon the work they have created, and recognizes them for their leadership as we begin to create a digital world we only could have dreamed about a generation ago.
- › SD Times Influencers: Apple, Facebook, Google, IBM, Intel, Microsoft, GitHub, Netflix, Red Hat, Slack, *The Linux Foundation*

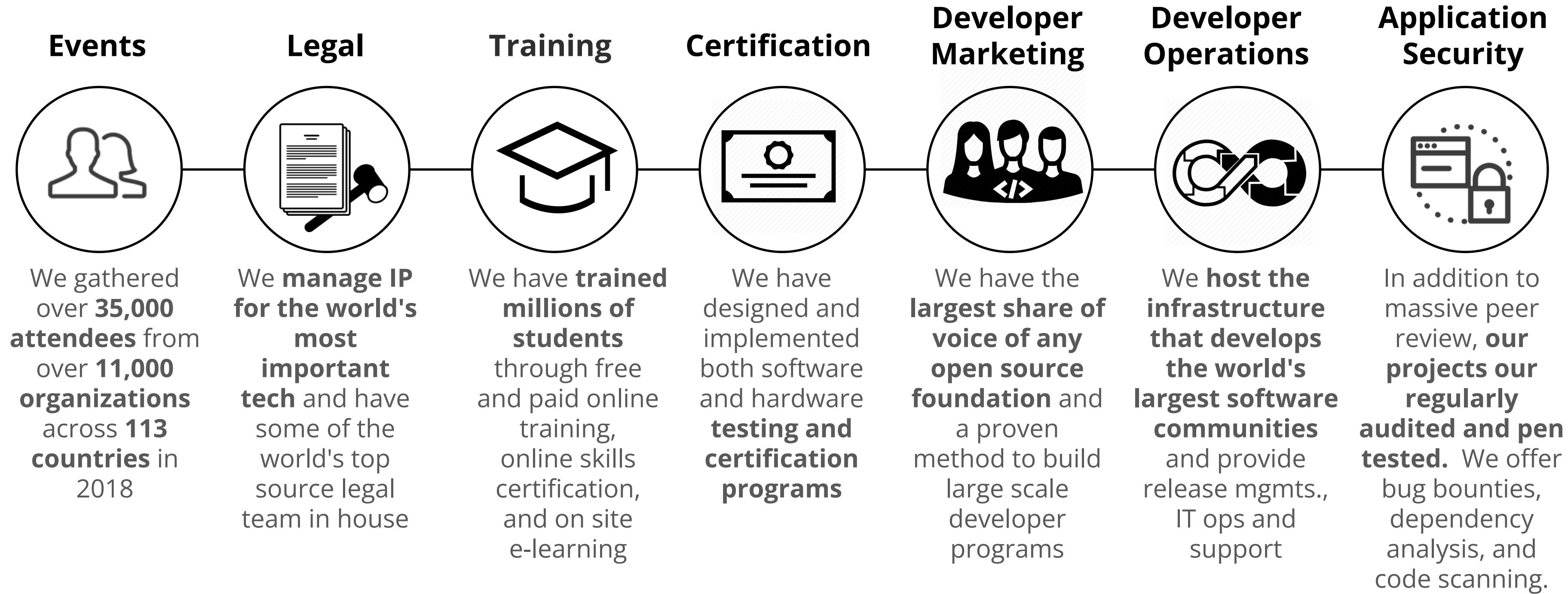
In 2019, The Linux Foundation is the Only Non-Profit Recognized For Three Consecutive Years For Its Critical Role in the Industry



The Linux Foundation Platform assists projects in 5 key areas

Governance and Membership	<ul style="list-style-type: none">• Project technical governance, policies, etc.• Ongoing business development and membership recruitment• Membership management
Development Methodology and Processes	<ul style="list-style-type: none">• Technical decision making• Project life cycle• Release processes
Infrastructure	<ul style="list-style-type: none">• CI/CD infrastructure using open source best practices• Release engineering, DevOps• Security and reliability
Ecosystem Development	<ul style="list-style-type: none">• Evangelism, marketing and outreach initiatives• Events bringing developers, users and solution providers together• Training for developers and administrators, establishing professional certifications
IP and Assets Management	<ul style="list-style-type: none">• Code provenance• Trademark management• IP Policy, license scanning, IP defenseas

Building large, sustainable ecosystems require collective resources



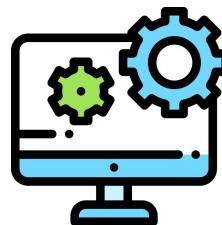
We enable organizations to become open source leaders

The path to leadership in enterprise open source



We help organizations navigate the open source ecosystem

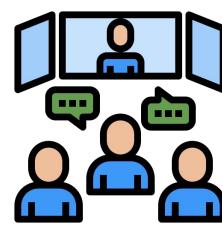
Our services help companies manage open source strategically.



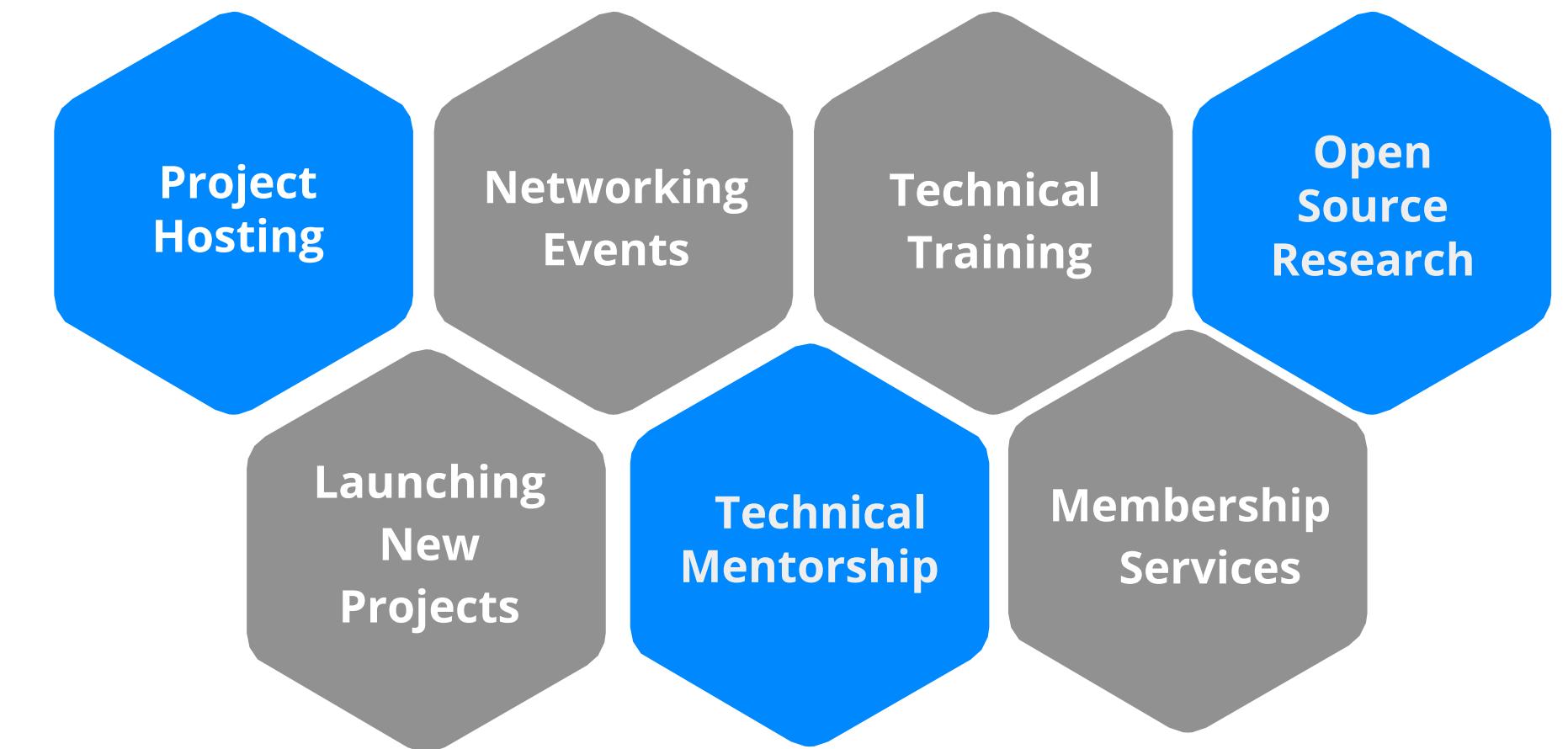
We host the world's most important projects.



Our events are the place where top developers and users of open source meet.



Our training programs meet the demand for OSS skills from the source.





LF AI & Data Foundation

Ibrahim Haddad, PhD
Executive Director

Open source libraries, frameworks, platforms, tools, are a two-way street: they make AI accessible to everyone, and companies benefit from a community of other contributors helping accelerate open AI applied research.

The barrier to entry in AI is lower than ever before, thanks to open source software.

Open source benefits for AI & Data

FAIRNESS

Methods to detect and mitigate bias in datasets and models, e.g., bias against known protected populations

ROBUSTNESS

Methods to detect alterations and tampering with datasets and models, e.g., modifications from known adversarial attacks

EXPLAINABILITY

Methods to enhance persona's or role's ability to understand and interpret AI model outcomes, decisions, and recommendations, e.g., ranking and debating results and options

LINEAGE

Methods to ensure the provenance of datasets and AI models, e.g., reproducibility of generated datasets and AI models

AVAILABILITY

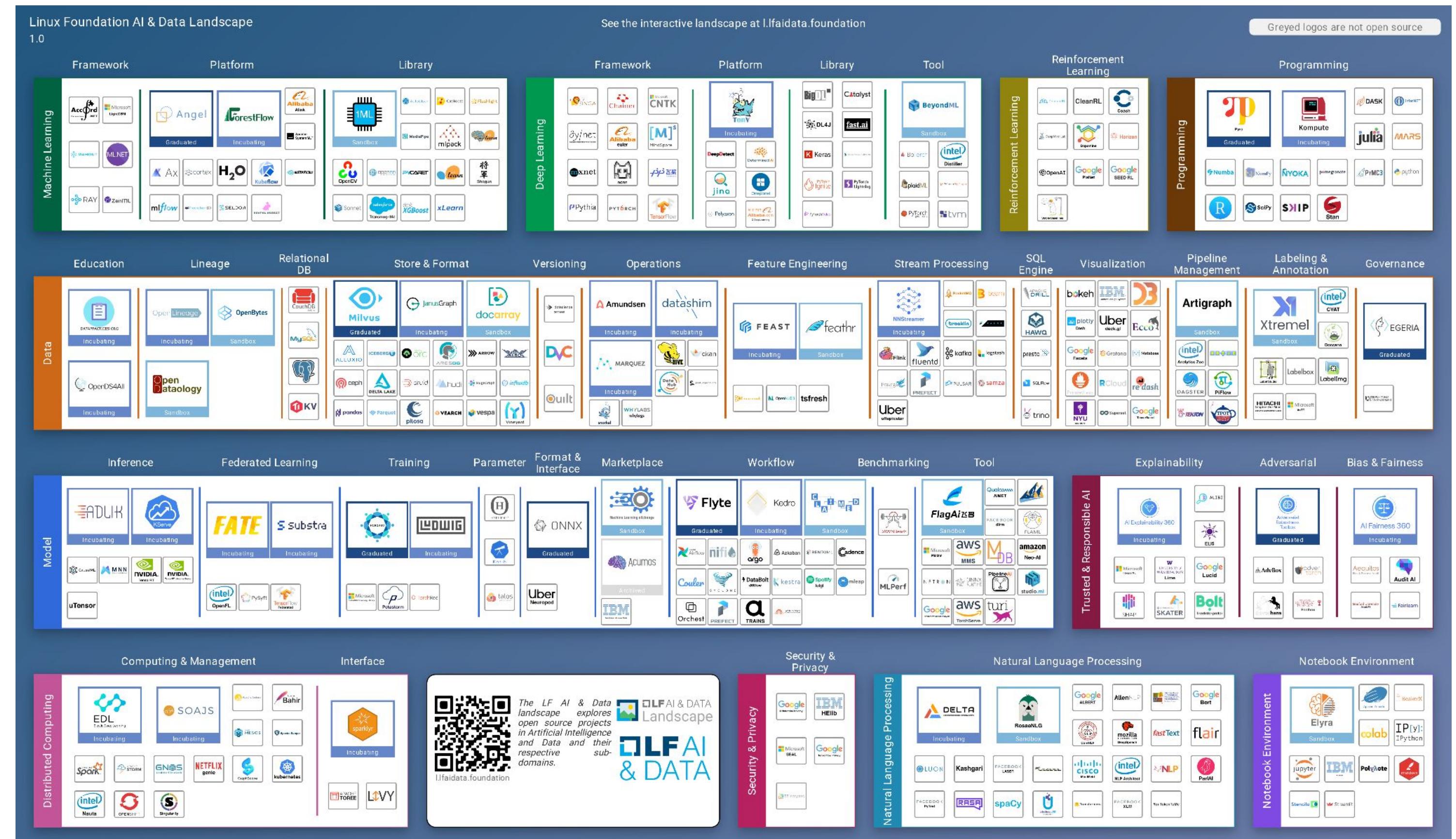
Open source data-specific licenses make data freely accessible for use without mechanisms of control

GOVERNABILITY

A governance structure and tools to clean, sort, tag, trace, and govern data and datasets

A growing ecosystem

<https://l.lfaidata.foundation>



330+ Projects

2.7M+ GitHub Stars

45K+ Developers

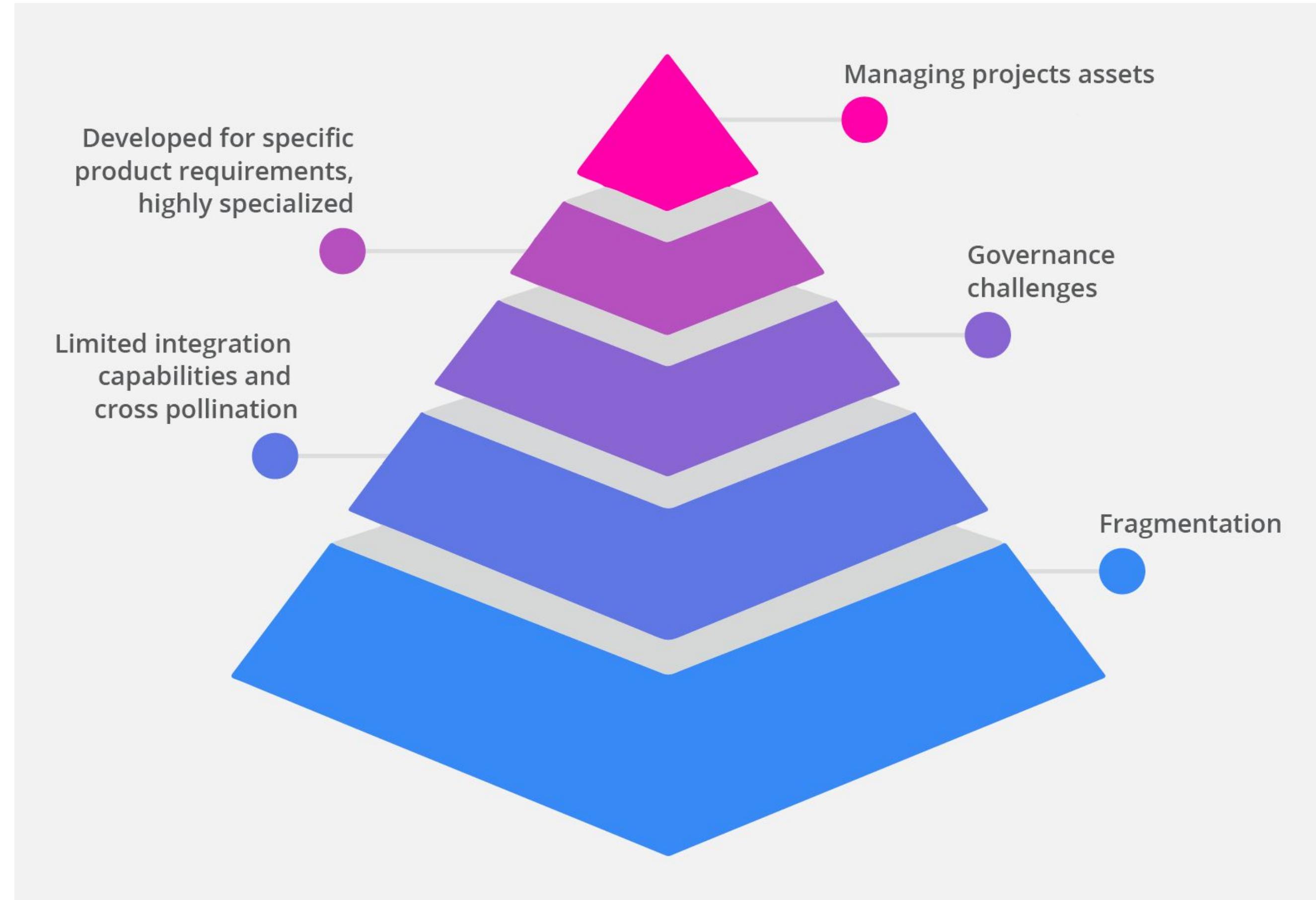
190+ Founding Org

500M+ LoC

1M+ LoC / Week

1000s of Contributing Orgs

But with challenges...



Who is LF AI & Data?

The LF AI & Data is a global not for profit foundation that hosts critical components of the global AI & Data technology infrastructure. It brings together the world's top developers, end users, and vendors to identify and contribute to the projects and initiatives that address industry challenges for the benefit of all participants.

Our Mission

Our mission is to build and support an open AI community, and drive open source innovation in the AI, ML, DL and Data domains by enabling collaboration, sharing best practices, supporting development efforts, and the creation of new opportunities for all the members of the community.

Key stats showcasing unprecedented momentum

51
Member
Organization

46
Technical
Projects

6
Active
Committees

20+
Technical
Integrations

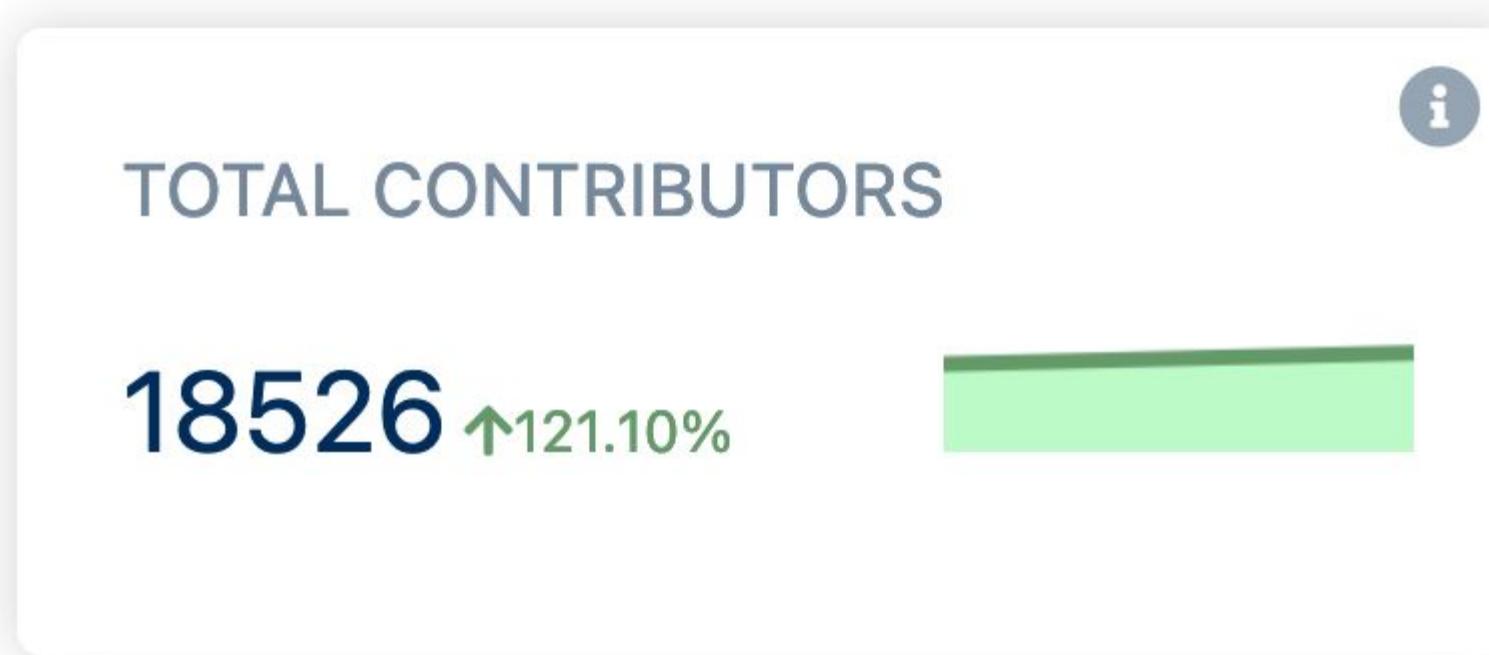
18,500+
Contributors

188,000+
GitHub Pull
Requests

500+
Active
Organizations

Jan 17, 2022

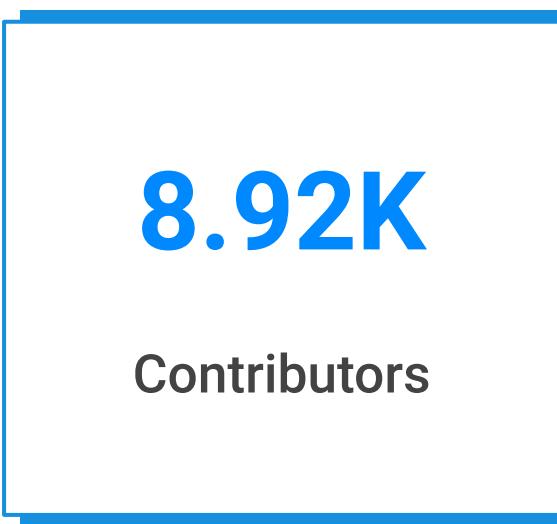
Source: [LFX Insights](#)



Contributors performing code activity (commits/PRs/changesets) or submitting and resolving bugs are code contributors.

Dec 31, 2020

Source: LFX Insights

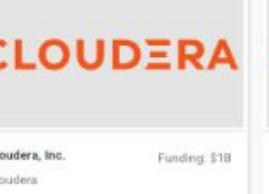
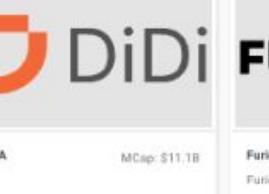
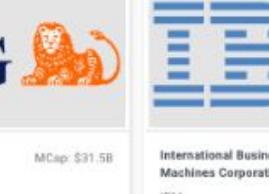
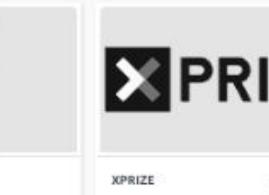
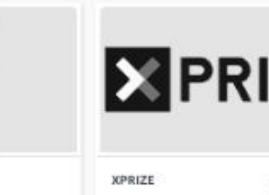


Commit Growth

Jan 17, 2022, Source: [LFX Insights](#)



Members

LF AI & Data Member Company - Premier (8)							
 Baidu	 Ericsson	 Oppo	 Huawei	 Nokia	 SAS	 The 4th Paradigm Technology Co., Ltd.	 ZTE Corporation
Beijing Baidu Netcom Science Technology Co., Ltd. Baidu	Ericsson Ericsson	Guangdong OPPO Mobile Telecommunications Corp., Ltd. Oppo	Huawei Technologies Co., Ltd. Huawei Technologies	Nokia Corporation Nokia	SAS Institute Inc. SAS	Paradigm4, inc. Paradigm4, inc.	ZTE Corporation ZTE
LF AI & Data Member Company - General (16)							
 BasicAI	 Broadcom Corporation	 Cloudera, Inc.	 databricks	 DiDi USA	 FuriosaAI, Inc.	 GRAVITI TECHNOLOGIES INC	 ING Group
BasicAI BasicAI	Broadcom Corporation Broadcom	Cloudera, Inc. Cloudera	Funding: \$1B databricks	DiDi USA DiDi	FuriosaAI, Inc. FuriosaAI, Inc.	GRAVITI TECHNOLOGIES INC Graviti	ING Group ING Group
 RStudio PBC	 Union.ai	 VMware, Inc.	 Zilliz	 Zilliz	 Zilliz	 Zilliz	 Zilliz
RStudio PBC RStudio	Union.ai Union.ai	VMware, Inc. VMware	MCap: \$45B VMware	Zilliz Zilliz	Zilliz Zilliz	Zilliz Zilliz	Zilliz Zilliz
LF AI & Data Member Company - Associate (24)							
 AI for people	 aivancy PARIS-CACHAN	 Ambianic.ai	 BAAI 智源研究院	 Banque de France	 Chaitanya Bharathi Institute Of Technology	 Ersilia Open Source Initiative	 Galgotias University
AI for People AI For People	Aivancy School for Technology, Business & Society Paris-Cachan aivancy school for Technology, Business & Society	Ambianic.ai Ambianic	baai BAAI	Banque de France Banque de France	Chaitanya Bharathi Institute Of Technology Chaitanya Bharathi Institute of Technology	Ersilia Open Source Initiative Ersilia Open Source Initiative	Galgotias University Galgotias University
 New York University	 OpenI 启智 新一代人工智能开源开放平台	 OpenUK	 Penn State Great Valley - The Pennsylvania State University	 Praveen Singh Institute Of Technology	 Quantitative Insights	 SAHYADRI COLLEGE OF ENGINEERING & MANAGEMENT	 Shanghai OpenSource Information Technology Association
New York University New York University	OpenI OpenI	OpenUK OpenUK	Penn State Great Valley - The Pennsylvania State University Penn State University	Praveen Singh Institute Of Technology Praveen Singh Institute Of Technology	Quantitative Insights Quantitative Insights	SAHYADRI COLLEGE OF ENGINEERING & MANAGEMENT SAHYADRI College of Engineering and Management	shopen Shanghai OpenSource Information Technology Association
 ISSIP	 RICE KEN KENNEDY INSTITUTE	 Montreal AI Ethics Institute	 High School Technical Services	 Ken Kennedy Institute	 University of Washington	 Université Libre de Tunis	 XPRIZE
ISSIP International Society of Service Innovation Professionals	RICE KEN KENNEDY INSTITUTE Ken Kennedy Institute	MAIEI Montreal AI Ethics Institute	High School Technology Services High School Technical Services	Ken Kennedy Institute Ken Kennedy Institute	University of Washington University of Washington	Université Libre de Tunis Université Libre de Tunis	XPRIZE XPRIZE

Foundation Structure and Governance

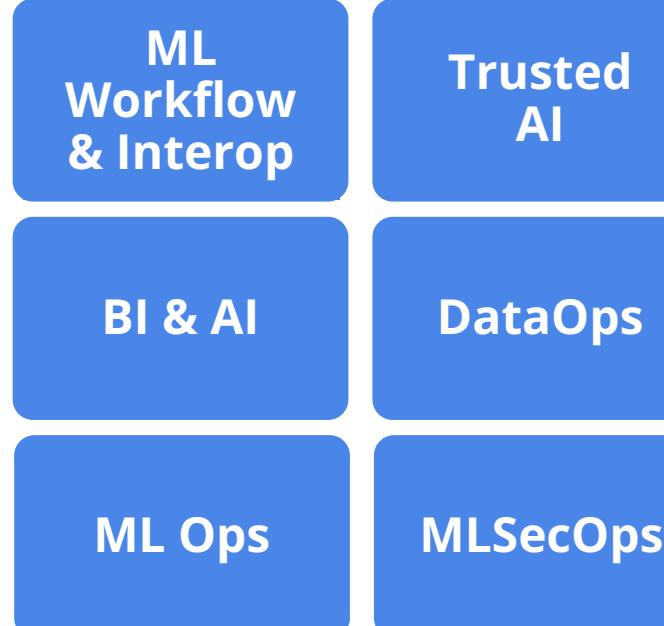
Foundation Governance

(Funding effort)

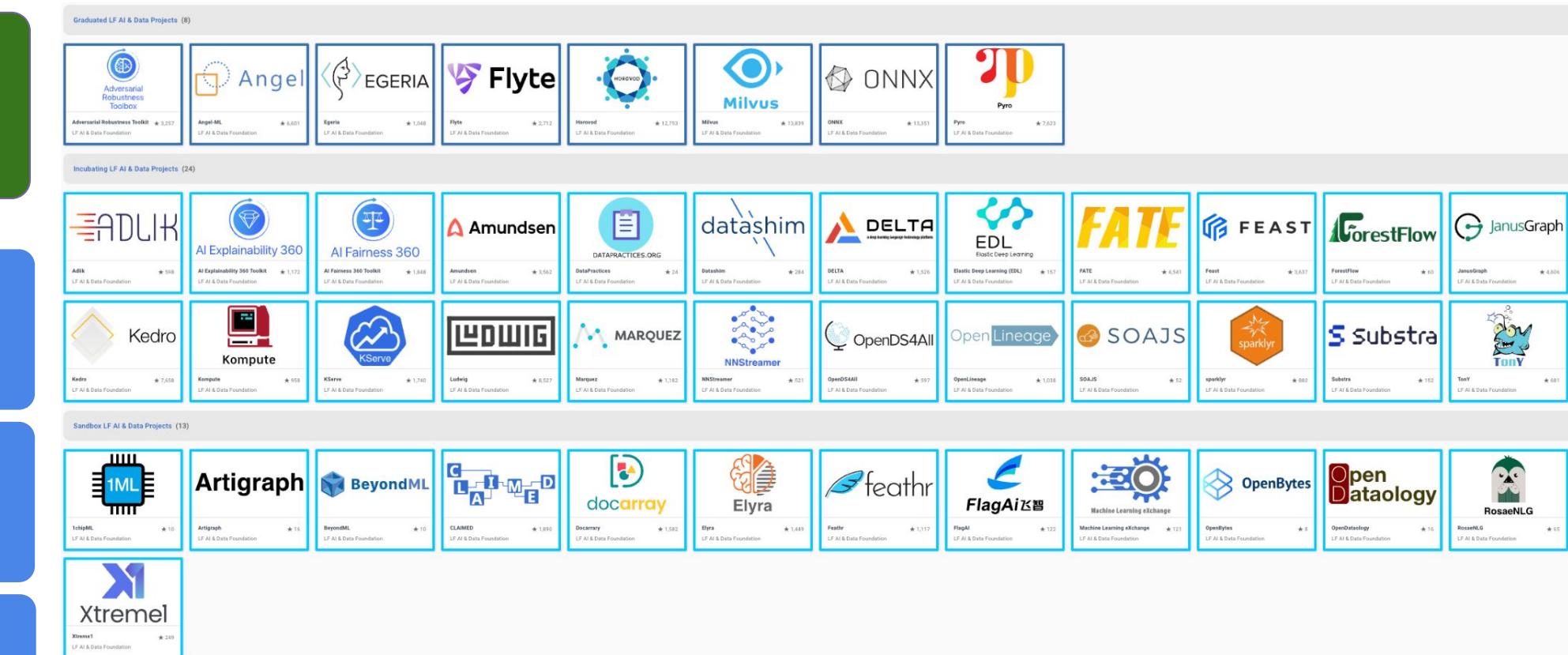


Technical Coordination

Technical Advisory Council



Hosted Projects



Hosted Projects

Graduated LF AI & Data Projects (8)

Adversarial Robustness Toolbox ★ 3,257
Angel-ML ★ 6,601
EGERIA ★ 1,048
Flyte ★ 2,712
Horovod ★ 12,753
Milvus ★ 12,839
ONNX ★ 13,351
Pyro ★ 7,623

Incubating LF AI & Data Projects (24)

ADLIK ★ 598
AI Explainability 360 ★ 1,172
AI Fairness 360 ★ 1,848
Amundsen ★ 3,562
DataPractices.org ★ 24
datashim ★ 284
DELTA ★ 1,526
EDL ★ 157
FATE ★ 4,541
FEAST ★ 3,637
ForestFlow ★ 60
JanusGraph ★ 4,606
Kedro ★ 7,658
Kompute ★ 658
KServe ★ 1,740
Ludwig ★ 8,527
Marquez ★ 1,182
NNStreamer ★ 521
OpenDS4All ★ 597
OpenLineage ★ 1,038
SOAJS ★ 52
sparklyr ★ 680
Substra ★ 152
TonY ★ 681

Sandbox LF AI & Data Projects (13)

1chipML ★ 10
Artigraph ★ 16
BeyondML ★ 10
CLAIMED ★ 1,890
docarray ★ 1,582
Elyra ★ 1,649
feathr ★ 1,117
FlagAI ★ 122
Machine Learning eXchange ★ 121
OpenBytes ★ 11
OpenDataology ★ 16
RosaeNLG ★ 65

Xtremel ★ 249

Industry Leaders Host Their Projects in LF AI & Data



Bloomberg



Herron Tech



Tencent 腾讯



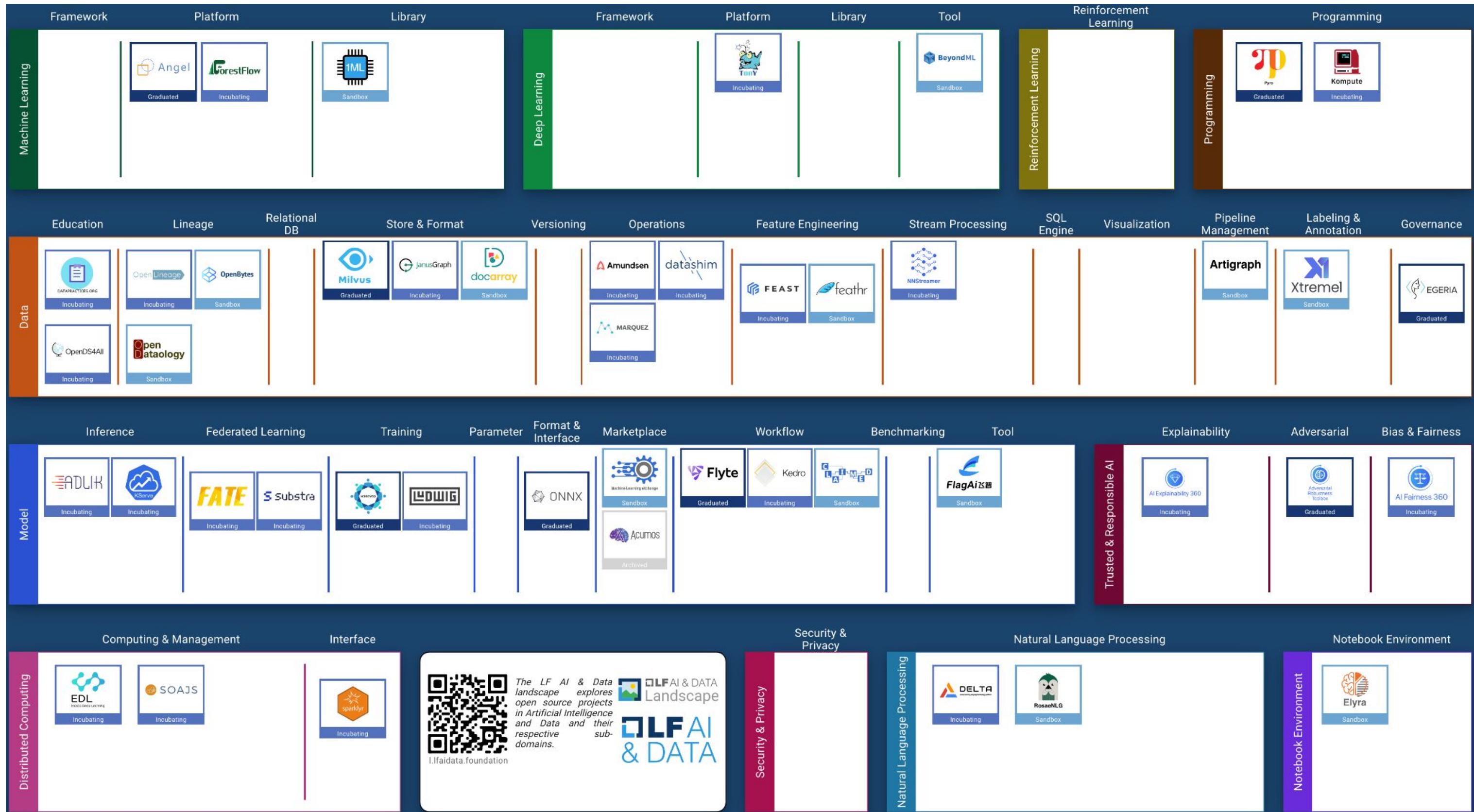
Uber

wework

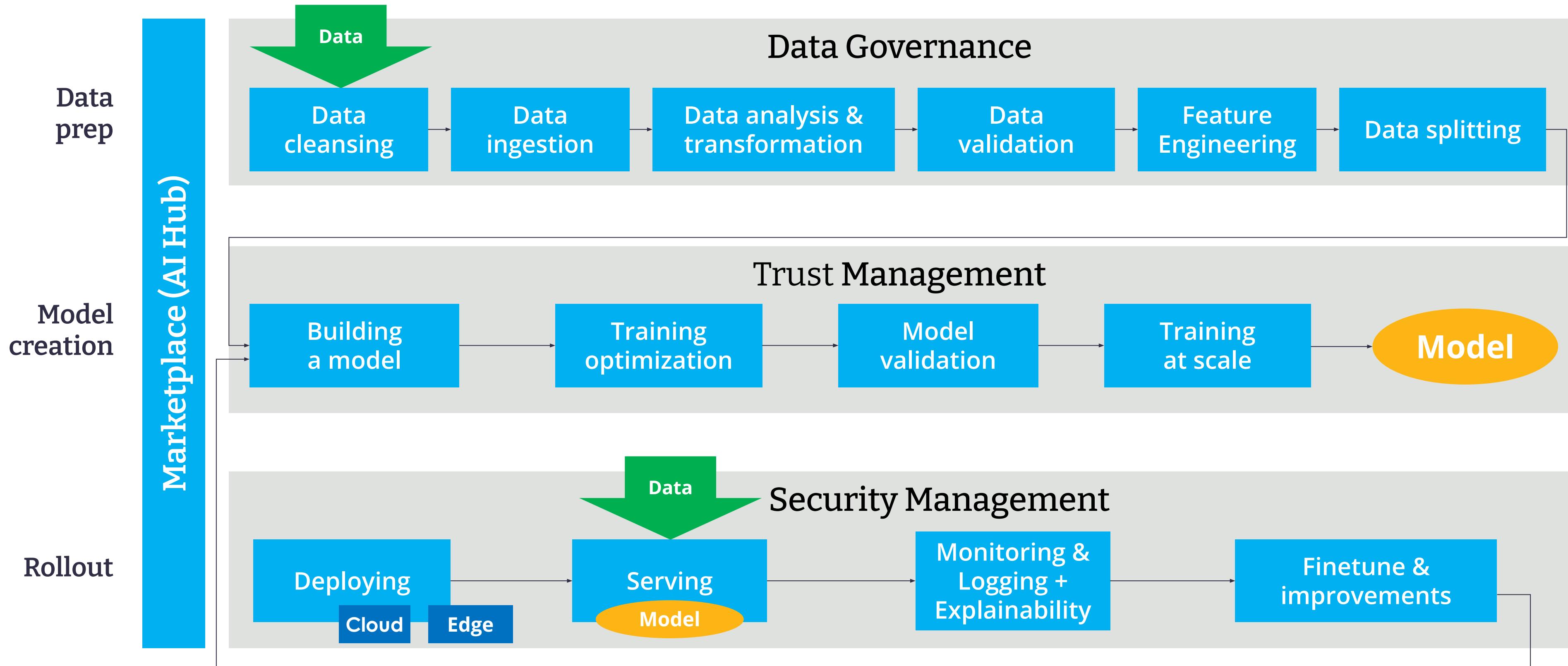


Over 12% of the ecosystem's key projects depend on LF AI & Data

for their open governance, safe haven for their assets, infrastructure, and enabling marketing, legal and event services, and staff that is eager to help and support the communities of these various projects



LF AI & Data provides a leading technical project for every phase of your ML Workflow



LF AI & Data is addressing key ecosystem challenges



LF AI & DATA TIMELINE 2022

EVENTS



INFO@LFAIDATA.FOUNDATION

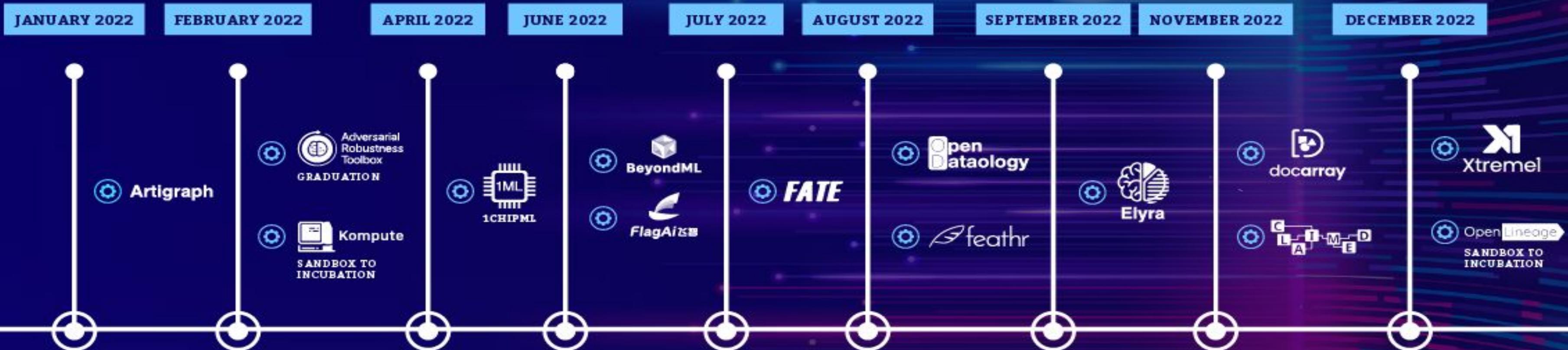
TECHNICAL PROJECTS

FOUNDATION

COMMUNITY

OLFAI & DATA TIMELINE 2022

PROJECTS



INFO@LFAIDATA.FOUNDATION

● TECHNICAL PROJECTS

● FOUNDATION

● COMMUNITY

Services available to hosted projects

EVENTS MANAGEMENT <p>Events are part of LF AI & Data's core strategy to help projects build a community and accelerate knowledge-sharing and integration. Many LF AI & Data projects have their own events.</p>	NEUTRAL HOSTING <p>A neutral home for an open source project increases the willingness of developers from software companies, startups, academia, and elsewhere to collaborate, contribute, and become committers.</p>	DEDICATED STAFF <p>Projects have access to full-time staff (executive director, program manager, project coordinator) who cultivate the maturity and adoption of open source AI and data projects</p>	TRAINING AND CERTIFICATION <p>We develop training classes and, through the Linux Foundation, can execute and launch certification programs in support of hosted projects.</p>
MARKET SERVICES <p>We offer a wide range of marketing services to increase project awareness, project adoption, and the number of contributors.</p>	DEV-FOCUSED OPERATION <p>Services include IT infrastructure, release management, IT ops, support, security audits, and a host of tools (FOSSA, LastPass, Slack, Synk, Zoom, etc.).</p>	MENTORSHIP <p>Members of the LF AI & Data technical advisory committee and leaders of graduated projects are available to support and mentor new projects.</p>	LEGAL SERVICES <p>We help projects navigate licensing requirements, IP regimes, trademark management, compliance scans, export control filings, and developer certificate of origin or contributor license agreement integration with GitHub, etc.</p>
DESIGN AND AESTHETICS <p>Our in-house team provides graphic design resources for new logos, websites, and website refreshes or enhancements.</p>	PROGRAM MANAGEMENT <p>We have decades of experience in program management of open source projects. We bring best practices to all LF AI & Data hosted projects.</p>	LFX PLATFORM EXPERIENCE <p>This Linux Foundation product offers a set of integrated tools for project insights, security, easy contributor license agreements, crowdfunding, member engagement, and more.</p>	

Strong Presence in China

Premier
Members



General
Members



Hosted Projects



Companies
hosting projects



Board Chair



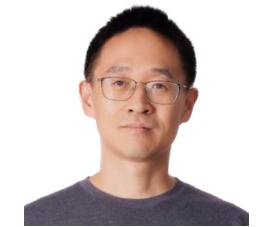
Junping Du
(Huawei)

General
Members Board
Representative



Charles Xie
(Zilliz)

Outreach Chair



Jerry Tan
(4paradigm)

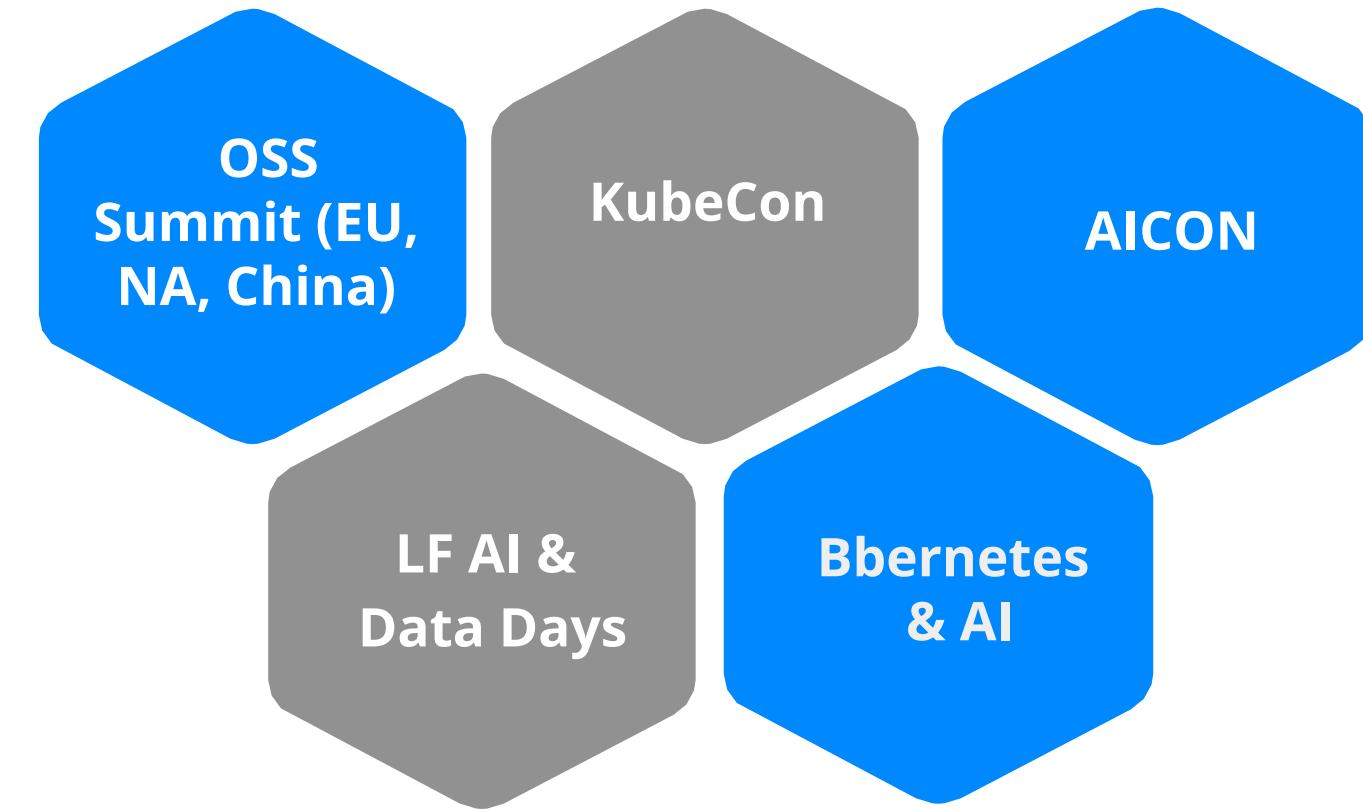
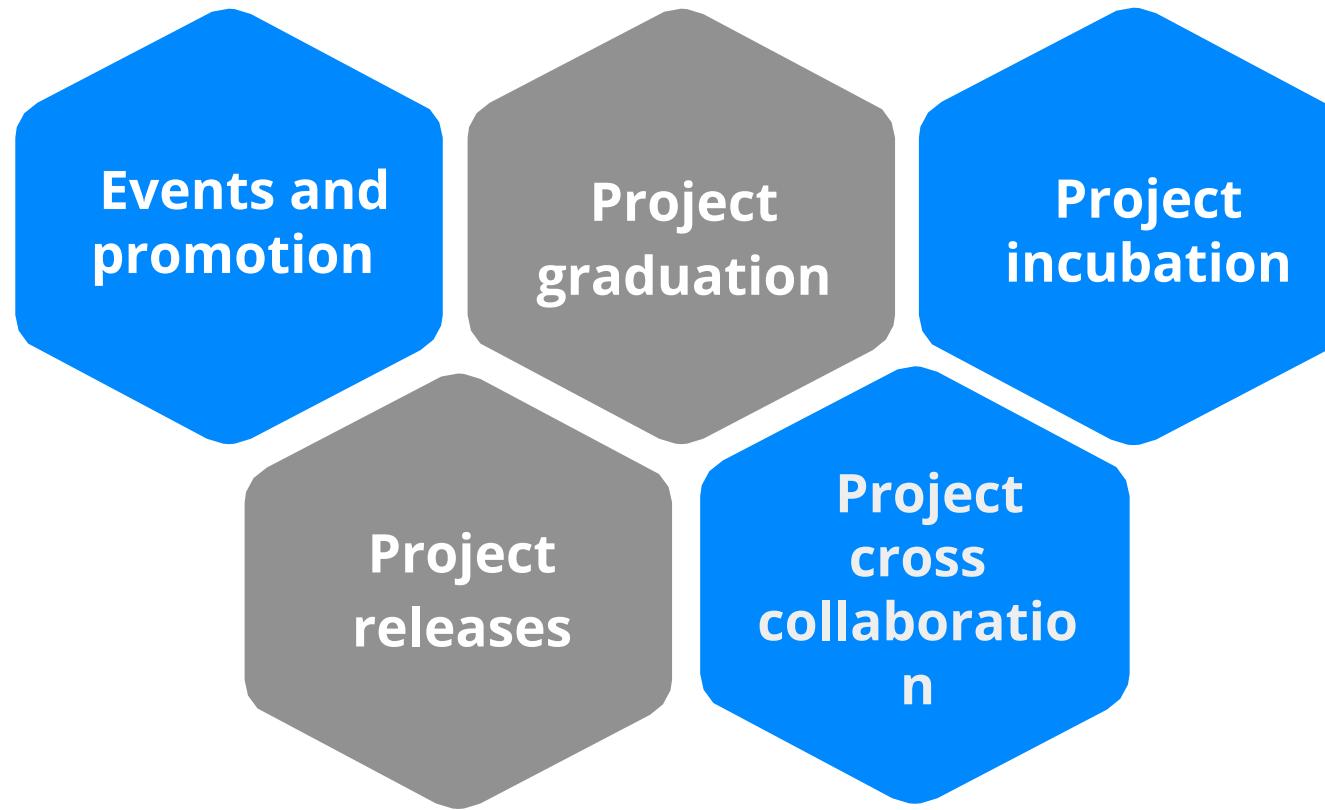
Focused Developer & Community Marketing Effort



MarComm services to support community and ecosystem engagement



Events and community ecosystem building services



Hosting Process

Technical Advisory Committee

- The TAC serves a coordination role:
 - Votes on new projects joining LF AI & Data, as well as on promoting projects across incubation stages
 - Facilitates communication and fosters collaboration across hosted technical projects
 - Communicates needs and requirements of the projects to the Governing Board
 - Onboards new projects, assists in progression of existing projects, and reviews projects annually
 - Defines and maintains the technical vision for the LF AI & Data Foundation
 - Creates a conceptual architecture for the projects, aligning projects, promoting, removing or archiving projects
 - Defines common practices to be implemented across LF AI & Data projects
- Meetings via conference calls take place every 2 weeks, are recorded and open to the general public
 - <https://wiki.lfai.foundation/pages/viewpage.action?pageId=7733341>

Project Incubation levels

Sandbox

- Any project that intends to join LF AI & Data Incubation in the future and wishes to lay the foundations for that.
- New projects that are designed to extend one or more LF AI & Data projects with functionality or interoperability libraries.
- Independent projects that fit the LF AI & Data mission and provide the potential for a novel approach to existing functional areas (or are an attempt to meet an unfulfilled need).

Incubation

Sandbox requirements plus:

- Have 2+ organizations actively contributing to the project.
- Have a defined Technical Steering Committee (TSC) with a chairperson identified, with open and transparent communication.
- Have a sponsor who is an existing LF AI & Data member.
- Have at least 300 stars on GitHub.
- Have achieved and maintained a Core Infrastructure Initiative Best Practices Silver Badge.
- Have the affirmative vote of the TAC.

Graduate

Incubation requirements plus:

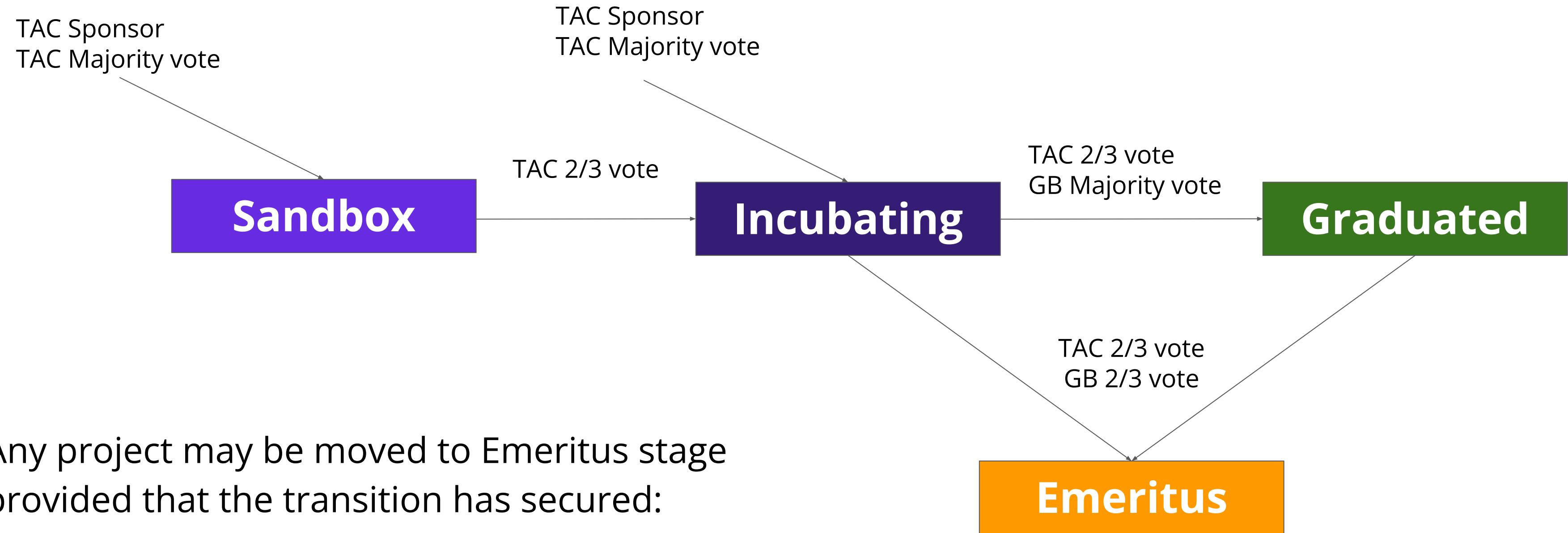
- Have a healthy number of code contributions coming from at least five organizations.
- Have reached a minimum of 1000 stars on GH.
- Have achieved and maintained a Core Infrastructure Initiative Best Practices Gold Badge.
- Have demonstrated a substantial ongoing flow of commits and merged contributions for the past 12 months.
- Receive the affirmative vote of two-thirds of the TAC and the affirmative vote of the Governing Board.
- Have completed at least one collaboration with another LF AI & Data hosted project
- Have a technical lead appointed for representation of the project on the LF AI & Data TAC

Transitioning from Incubation to Graduation

- The TAC will undertake an annual review of all projects
- Projects in the Sandbox Stage are generally expected to move to Incubation within 12 months from joining the Foundation following an evaluation by the TAC committee
- Projects in the Incubation Stage are generally expected to move to Graduation within 12-18 months from joining the Foundation following an evaluation by the TAC committee

Projects can be provided with an extension of time in their stage (up to the discretion of the TAC)

Project Lifecycle



- › TAC affirmative $\frac{2}{3}$ vote
- › GB affirmative $\frac{2}{3}$ vote

Process for proposing a project for hosting in LF AI & Data

1. Decide on a date to present to the TAC and request incubation
2. Ensure that your project implements these [recommendations](#)
3. Submit a formal request to incubate the project via a [GH](#) PR
4. Prepare deck and share with ED about 10 days prior to the presentation
5. Present to the TAC and get approval
6. Onboard the project with the LF AI & Data team and integrate the project with our service
7. Announce the project becoming hosted in LF AI & Data

Incubation Benefits by Levels

Sandbox

- Neutral hosting of the project's trademark and assets
- Announcement of the project hosting and social promotion.
- Right to refer to the project as a "LF AI & Data Foundation Project."
- An initial and regularly scheduled license scan of the project's codebase with results reported to the project's mailing list.
- Basic infrastructure support that includes mailing lists, wiki space, slack channel, etc.
- Basic marketing, communication, and PR support, limited to major announcements.
- Access to Foundation staff who are eager to help and support the project.

Incubation

Sandbox benefits plus:

- Appointment of an existing TAC member that will act as a sponsor of the project and provide recommendations regarding governance best practices.
- Create the project's artwork, website and other required creative work.
- Advanced marketing, PR and communication support that includes project promotion via blog posts, social media and web site; support with white papers and posters, and any type of marketing collateral designated to promote the project.
- Zoom bridge to be used by the project's technical steering committee.
- Basic events support and promotion.

Graduate

Incubation benefits plus:

- Graduate projects are eligible to receive support as determined by the Governing Board.
- LF AI & Data blog announcement or similar announcing the graduation of the project including promotion activities.
- Graduation stage projects gain a voting seat on the TAC.
- Advanced events support and promotion that includes event website, registration, support with sponsors, logistics, etc.
- Advanced IT infrastructure support.
- Additional ecosystem development opportunities, such as conformance programs, training, etc.

LF AI & Data Membership Benefits

LF AI & Data is positioned to bolster cross-company collaboration and interoperability with our neutral IP zone, rich contributor programs, and most importantly, the trust end users place in us.

Organizations join LF AI & Data to take an active role in supporting the growth and evolution of the Open Source AI & Data ecosystem

Support our mission, programs, and the community by helping fund services that hosted projects rely on

Host projects with us and benefit from the services & support we offer our hosted projects to increase their adoption and footprint in the ecosystem

Demonstrate thought leadership by participating in a wide reaching networking and marketing programs

Provide technical leadership to the community via the TAC, its various sub-committees and efforts

Be part of **defining and maintaining technologies** that are at the forefront of the industry

Receive greater insight into the foundation's strategy, efforts, projects and initiatives through increased engagement with the ED, staff and committees' leads

LF AI & Data Membership Benefits



Marketing
Amplification &
Brand Awareness



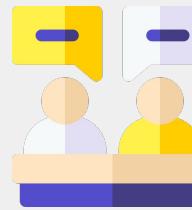
Community
Engagement



Thought & Tech
Leadership Across
Key Technologies

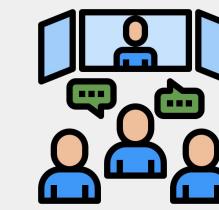
Marketing amplification and brand awareness

Broaden your reach and awareness in the community with LF AI & Data marketing programs.
As a member you can participate in:



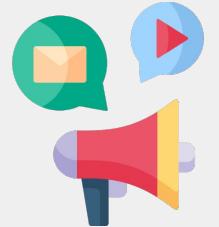
LF AI & Data Outreach Committee

Participate in the marketing committee monthly to engage with your peers in the cloud native space.



LF AI & Data Summit

LF AI & Data organizes its own community's open source developer summits focused on open source AI and Data technologies.



LF AI & Data Online Programs

Showcase your organization's open source technology by educating new and existing community members about best practices, trends, and new technologies



Public Relations & Analyst Relations Support

LF AI & Data supports members with analyst reports and research highlights.

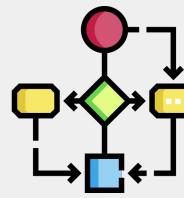


LF AI & Data Blog

Showcase your thought-leadership and industry commentary, as well as share technical walkthroughs for LF AI & Data projects here.

Community Engagement

LF AI & Data is a constellation of open source projects. Our members leverage many efforts to engage with our project's ecosystems and share their stories. As a member you can participate in:



ML Workflow and Interoperability

Design a reference architecture for end-to-end ML Workflow, provide a reference implementation using hosted projects, and facilitate integration and interop across projects.



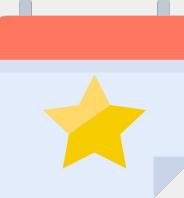
BI & AI

Integrate the power of AI and BI to make it CI (Cognitive Intelligence) by combining the speed machines accelerate (AI) with the direction intuited by human insight (BI).



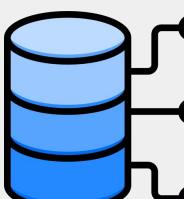
Trusted AI

A global group working on policies, guidelines, tools and use cases by industry to ensure the development of trustworthy AI systems and processes to develop them continue to improve over time.



LF AI & Data Day

A 1-day event organized multiple times per year focused on specific technical projects and collaboration ongoing in LF AI & Data



DataOps

Share best practices, and bring technology awareness around DataOps across industries and enable collaboration across LF AI & Data member companies, projects, and external participants.

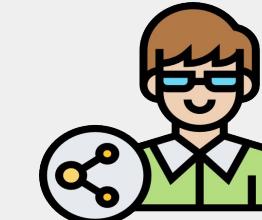
Thought leadership

Members of the LF AI & Data can network and help shape the open source AI and Data market.
As a member you can participate in:



Governing Board Participation

Participate in elections to serve on the Governing Board to oversee the vision of LF AI & Data and work with the TAC.



Technical Advisory Council Leadership

LF AI & Data TAC provides technical leadership to the open source AI and Data community, accepts projects into incubation, graduates projects and launches new efforts and collaborations.



Engagement with other Foundations and Industry Consortia

Participate in establishing collaborations with other umbrella foundations under the LF and broadly with other industry consortia organizations.



Interactive Landscape Placement

Our landscape is a comprehensive view of all open source AI and Data critical projects in the ecosystem. Anyone looking to adopt open source AI and Data projects comes here to review what technologies they should assess and adopt.

LF AI & Data Annual Dues

	Not Yet a Linux Foundation Member	Existing Linux Foundation Member
Premier Member	\$120,000	\$100,000
General Member	5,000 employees +: \$45,000 2,000 - 4,999: \$30,000 500 - 1,999: \$25,000 Up to 499 employees: \$10,000	5,000 employees +: \$25,000 2,000 - 4,999: \$15,000 500 - 1,999: \$10,000 Up to 499 employees: \$5,000
Associate Member		Free <small>Limited to academic and nonprofit institutions respectively and requires approval by the Governing Board</small>

Premier Membership

Highest tier of membership – For organizations contributing heavily to open source AI and Data, and bringing their own projects to be hosted at the Foundation. They work in concert with the Foundation team members. These companies want to take the most active role in enabling the open source AI and Data ecosystem.

Premier members are eligible to:

(Enjoy all the benefits of General level, plus;)

- **Hold one (1) guaranteed seat** on the LF AI & Data Governing Board + one alternate (1) representative
- **Appoint one (1) voting representative in any subcommittees** or activities of the LF AI & Data Governing Board
- Receive greater **insight into LF AI & Data strategy and projects** through engagement with the LF AI & Data leadership team. Premier level members have the unique opportunity to **customize their experience** with LF AI & Data. The team will make themselves available to help achieve your strategic goals. We can help with guidance in open source contributions, new market creation, and/or open source project donation. **Have ideas? Just ask!**
- Enjoy most prominent placement in displays of membership including website, landscape and marketing materials.
- Create an individualized press release upon membership announcement with the LF AI PR team.

General Membership

Targeted for organizations that want to support of LF AI & Data and our mission. Organizations that join at the General level are deeply committed to using open source technology, helping LF AI & Data grow, voicing the opinions of their customers, and giving back to the community.

General members are eligible to:

- **Participate in elections** between **other General members** to appoint one (1) representative to the **LF AI & Data Governing Board**. Three (3) total General representatives will be elected to represent all General members. Voice your opinions amongst the leaders in the industry and help determine the strategic direction of LF AI & Data.
- Receive **greater insight into LF AI & Data strategy and project roadmaps** through increased engagement with the LF AI & Data Executive Director and staff.
- Create an announcement upon membership announcement with the LF AI & Data PR team.
- Participate in all Marketing, Community, Thought Leadership opportunities.
- Opportunity to **host “LF AI & Data Day”**, including on-demand webinars and livestream.
- Receive **discounts** on LF AI & Data event sponsorships.
- Demonstrate your support for LF AI & Data by displaying your logo on the LF AI & Data website, landscape and in marketing materials.

Associate Membership

 **AI & DATA**
ASSOCIATE MEMBER

The Associate membership is a free complimentary membership limited to academic and non-profit institutions.

Associate members are eligible to:

- Participate in all Marketing, Community, and Thought Leadership opportunities.
- Identify your organization as a member and display your logo on the LF AI & Data website, landscape and in marketing materials.
- Feature your organization in the quarterly new members announcement.
- Receive discounts on LF AI & Data events' sponsorship.

Specific opportunities for associate members:

- Practical experience working with open source foundations
- Visibility into and within the ecosystem
- Internships opportunities with commercial members
- Collaboration opportunities
- Publication opportunities based on R&D conducted with projects
- Open source working experience for all participants
- Access to LF AI & Data events

Getting Involved in LF AI & Data

Getting involved with technical projects

Participate in the development: Review and submit patches, report bugs, request features, test, etc.

Contribute to project documentation

Join the projects' mailing lists and participate in the discussions

Attend developer events for LF AI & Data projects

Provide your testing and deployment feedback via appropriate project channel

Start a local User Group Meetup

Getting involved with the Technical Advisory Council

Support TAC leadership in inviting speakers to present for the LF AI & Data technical community

Share success stories, opportunities and challenges in relation to open source AI with the broader technical community

Support technical leadership for integration and harmonization efforts with other open source projects

Support TAC in evaluating new projects for incubating; recommend new projects

Participate in the ML Workflow effort aiming to provide a reference workflow and support integration across LF AI & Data projects

Attend TAC Bi-weekly calls, participate in the discussions

Identify opportunities for collaboration on common interests and initiatives, seek input from peers

Support TAC in hosting and sponsoring intra-project and inter-project developer events

Support TAC Chair working with the GB to highlight opportunities and needed resources in support of hosted projects

Participate in the effort to enable collaboration with other LF umbrella foundations and external communities

Getting involved with the Outreach Committee

Promotion of project updates, releases, and news via LF AI & Data social media accounts

Marketing and PR support for demos at meetups and events

Contribute to the LF AI & Data landscape, promote in talks

Identify speaking opportunities and help secure speakers from the LF AI & Data community

Attend Outreach Committee meetings and participate in ongoing activities

Host vendor neutral content via LF AI blog site

Coordination at events, speaking proposals, booth attendance, demos, etc.

Help secure user stories about LF AI & Data based deployments

Publish use cases, case studies, white papers, and deployment insights

Get support for artwork, web site, content creation, etc., for LF AI & Data projects

Volunteer to host an LF AI & Data Day and developer events

Support LF AI & Data marketing and PR staff

Getting involved with the LF AI & Data Committees: BI & AI, DataOps, ML Workflow & Interop

Join the committee as a representative of your company

Join the conference calls and contribute to ongoing efforts

Promote the work of the committee, invite your collaborators to participate

Contribute to the landscape, promote in talks

Coordination at events, speaking proposals, booth attendance, demos, etc.

Subscribe to the mailing list and participate in discussions

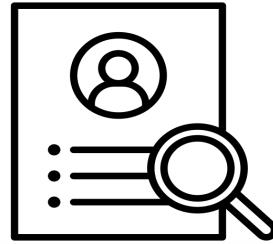
Host your related projects in the LF AI & Data Foundation

Help secure user stories about LF AI & Data based deployments

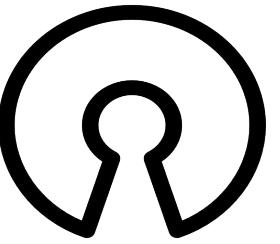
Invite prominent researchers and developers in the space to speak to the community

Challenges and Trends

Global Trends



Demand for open source talent



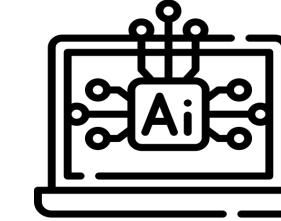
Rise of open source program offices



Prioritizing software security



High focus on software supply chain



Infusing AI and ML in products and services



Increased focus on Ethical AI



Data Lineage, Management, and Security

Resources:

[Linux Foundation Job Report](#)

[TODO Group](#)

[Open Source Security Foundation](#)

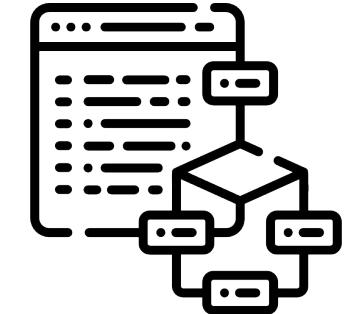
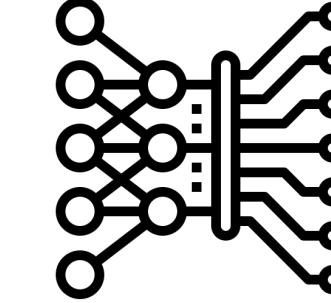
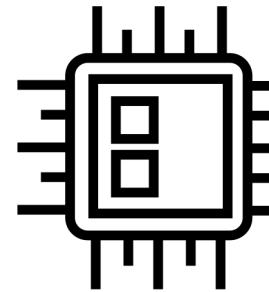
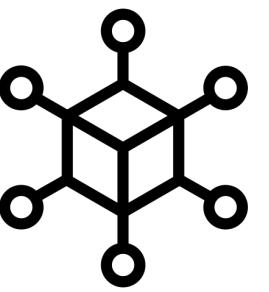
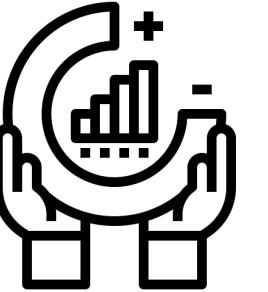
[Linux Foundation Efforts](#)

[LF AI & Data + PyTorch Foundation](#)

[Trusted AI Committee](#)

[LF AI & Data](#)

AI Challenges and Opportunities



Trusted and
Responsible AI

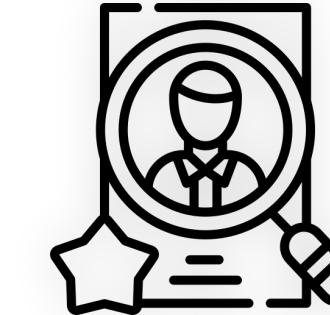
Deriving value
and insights
from data

AI & Edge
computing

AI chip design

Federated
learning

Efficient and
smarter
algorithms



Data Privacy &
Security

Data
Governance

Computational
Power

National Policies
& Legislations

Skilled Talent

Building Trust

Join us, become a member!

Incubate your project

info@lfidata.foundation

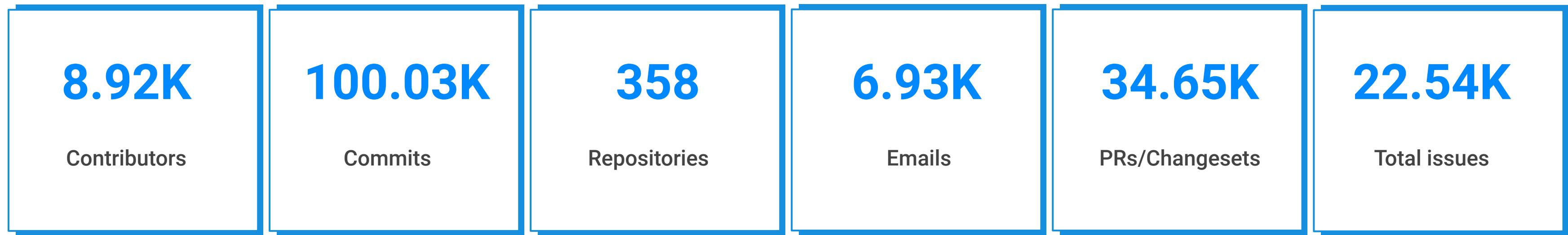


blog

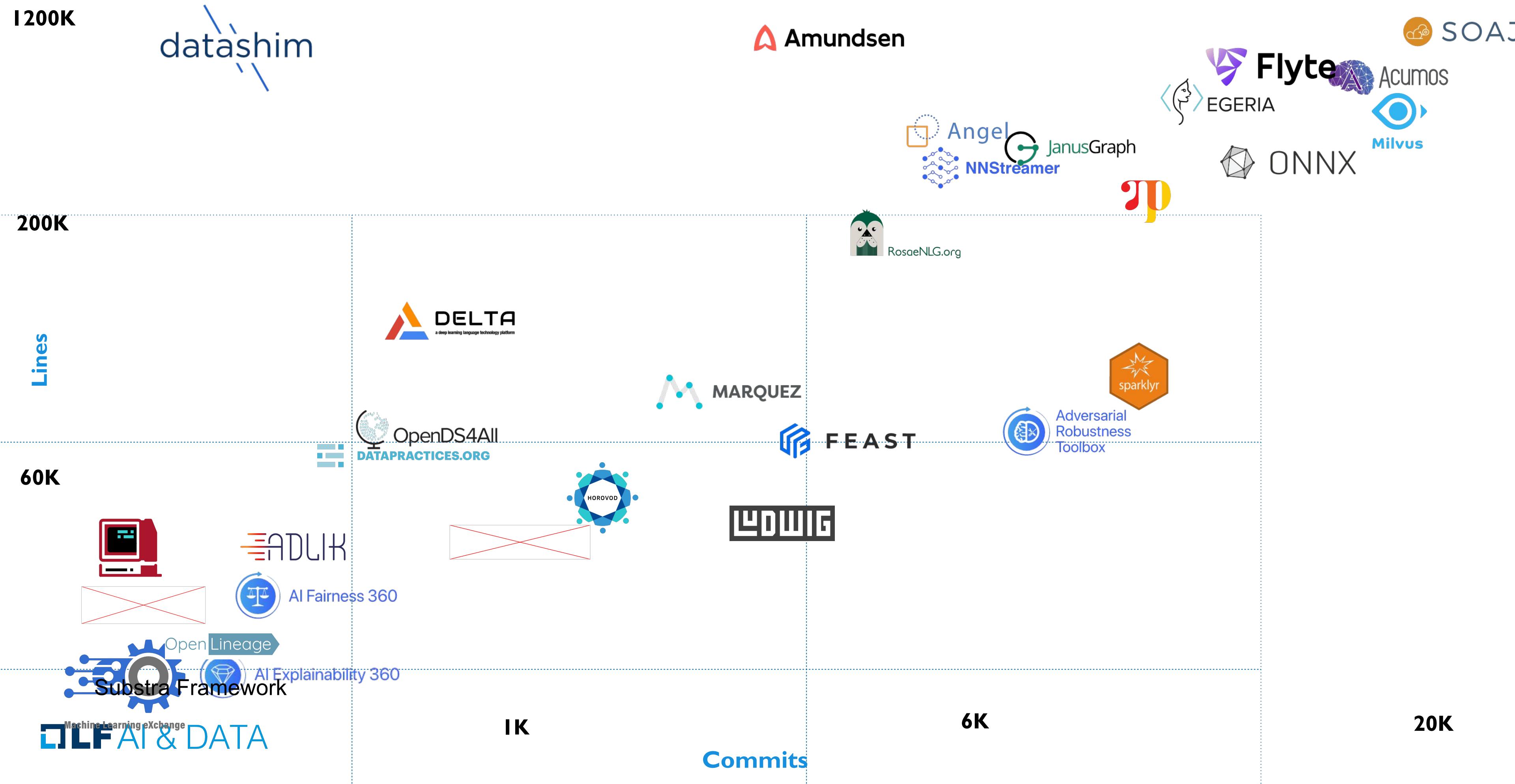
OLD FOR REFERENCE ONLY

Active and growing developer community

Jan 1- Dec 31, 2020



Data Coverage (June 7, 2021) - Line of Code and Commits



Data Coverage (June 7, 2021) - Stars and Contributors

11K



ONNX



GitHub
Stars

0.4K

MLF AI & DATA
Machine Learning eXchange

0.3K

0.7K

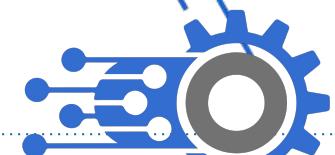
6.2K

Contributors



Substra Framework

datashim



OpenLineage



OpenDS4All

OpenLineage



Flyte



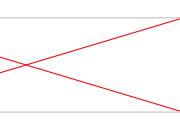
AI Explainability 360



ADLIK



RosaeNLG.org



DELTA
a deep learning language technology platform



MARQUEZ



NNStreamer



SOAJJS



Acumos



LUDWIG



Angel



Adversarial
Robustness
Toolbox



Milvus



JanusGraph

Amundsen

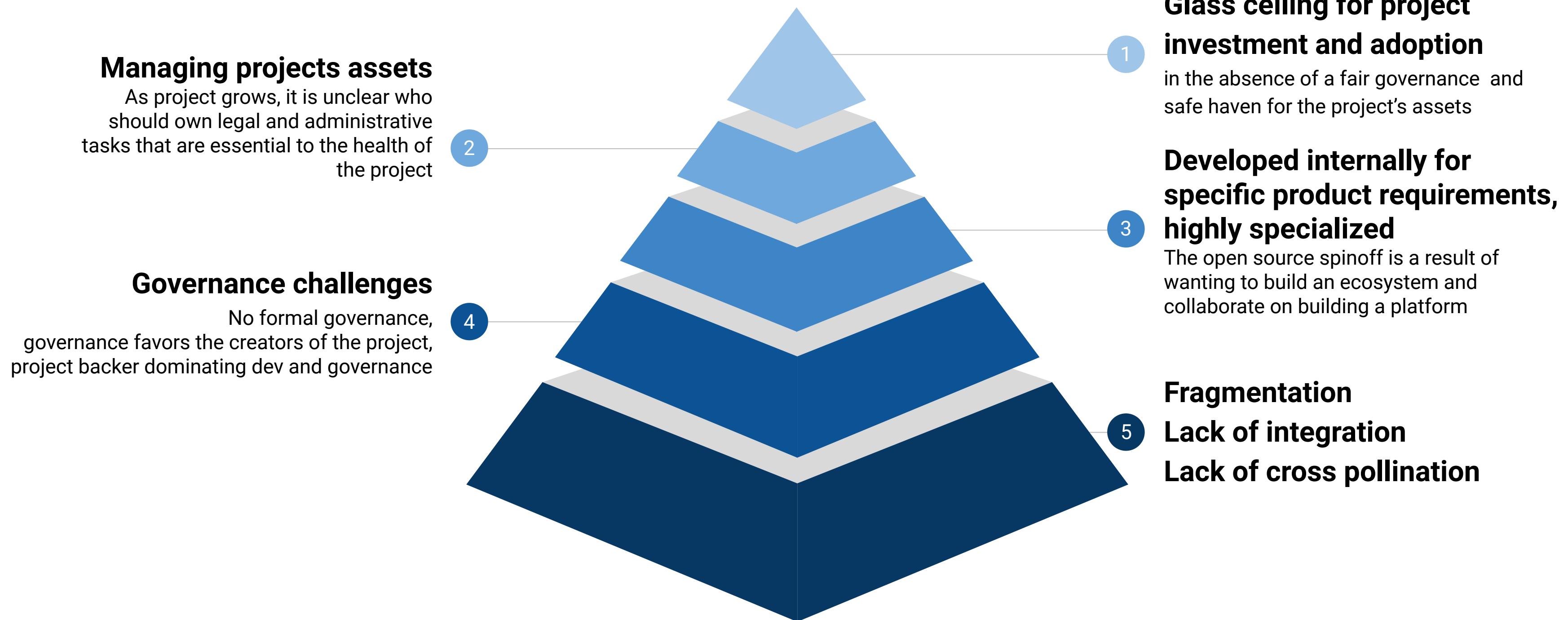


FEAST



sparklyr

But with challenges



Why host your project in LF AI & Data?

Neutral hosting <p>A neutral home for an open source project increases the willingness of developers from software companies, startups, academia, and elsewhere to collaborate, contribute, and become committers.</p>	Dedicated staff <p>Projects have access to full-time staff (executive director, program manager, project coordinator) who cultivate the maturity and adoption of open source AI and data projects.</p>	Training and certification <p>We develop training classes and, through the Linux Foundation, can execute and launch certification programs in support of hosted projects.</p>	Events management <p>Events are part of LF AI & Data's core strategy, to help projects build a community and accelerate knowledge-sharing and integration. Many LF AI & Data projects have their own events.</p>
Dev-focused operation <p>Services include IT infrastructure, release management, IT ops, support, security audits, and a host of tools (FOSSA, LastPass, Slack, Synk, Zoom, etc.).</p>	Mentorship <p>Members of the LF AI & Data technical advisory committee and leaders of graduated projects are available to support and mentor new projects.</p>	Market services <p>We offer a wide range of marketing services to increase project awareness, project adoption, and number of contributors.</p>	Legal services <p>We help projects navigate licensing requirements, IP regimes, trademark management, compliance scans, export control filings, and developer certificate of origin or contributor license agreement integration with GitHub, etc.</p>
Design and aesthetics <p>Our in-house team provides graphic design resources for new logos, websites, and website refreshes or enhancements.</p>	Program management <p>We have collectively decades of experience in program management of open source projects. We bring best practices to all LF AI & Data hosted projects.</p>	LFX platform experience <p>This Linux Foundation product offers a set of integrated tools for project insights, security, easy collaborator license agreements, crowdfunding, member engagement, and more.</p>	