

LF AI: Accelerating Open Source AI Innovation and Collaboration

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 THE **LINUX** FOUNDATION

 LF AI

Ecosystem Overview

Machine Learning

Framework

Platform

Library

Deep Learning

Framework

Platform

Library

Tool

Reinforcement Learning

Reinforcement Learning

Programming

Programming

Notebook Environment

Versioning

Store & Format

Operations

Stream Processing

SQL Engine

Feature Engineering

Visualization

Pipeline Management

Labeling and Annotation

Governance

Model

Benchmarking

Training

Parameter

Format & Interface

Marketplace

Workflow

Inference

Tool

Explainability

Adversarial

Bias & Fairness

Distributed Computing

Computing & Management


Interface

Security & Privacy

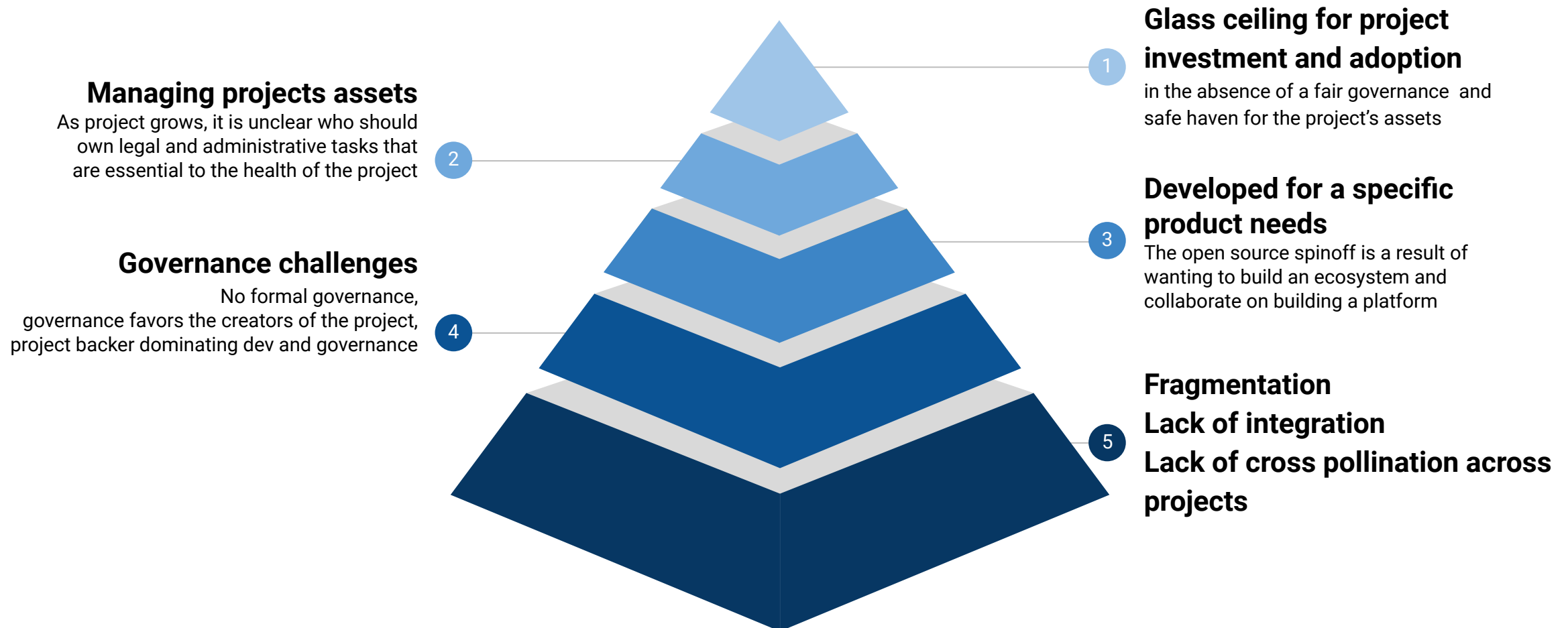
Natural Language Processing

Education

The LF AI landscape explores open source projects in the domains of artificial intelligence, machine learning, and deep learning.


l.fai.foundation

Open Source AI - Ecosystem Challenges



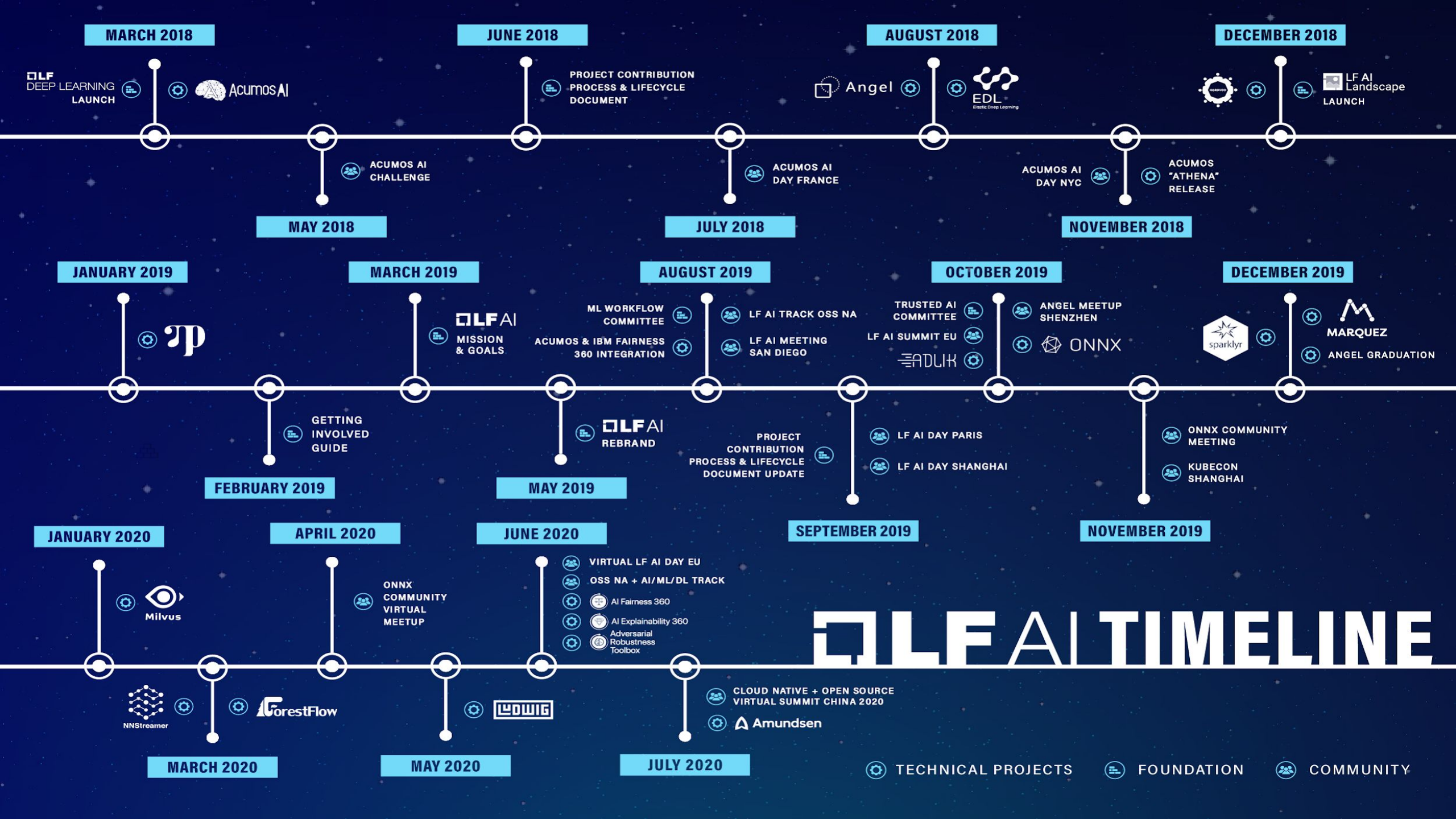


LF AI is an LF umbrella foundation founded in March 2018 to support collaboration and open source innovation in the AI, ML, and DL

<https://lfai.foundation>

Motivations for Harmonization

1. **Better interoperability and capabilities** across projects
2. Hosting projects under a single umbrella enables **closer collaboration and integration** across projects and is a proven recipe for building a strong open ecosystem and growing the ecosystem
3. **Unified guidance for end users** on tools, interoperability, integration, standards, and the future of AI, Data and Analytics as its use continues to grow in every industry
4. **Greater efficiency** for members across various costs spent on supporting



LF AI Structure and Governance

Foundation Governance

Funding effort to support technical projects hosted under the Foundation

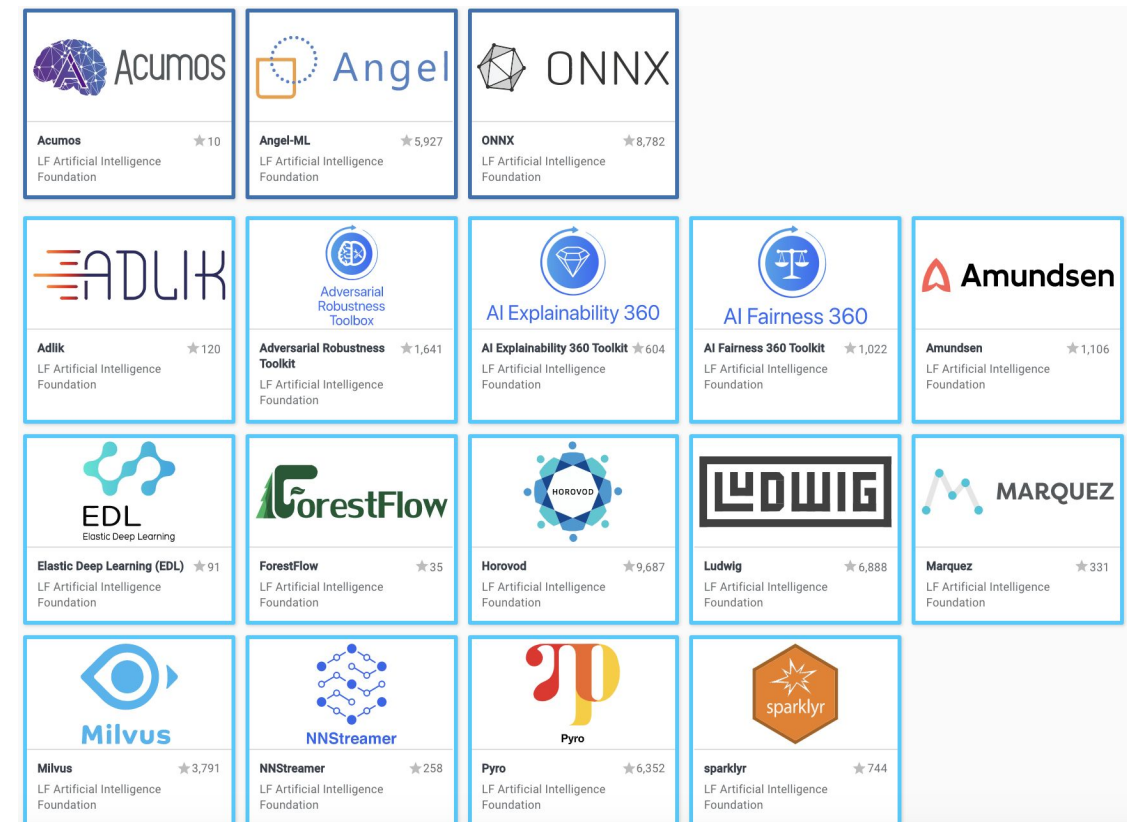


Technical Coordination and New Initiatives

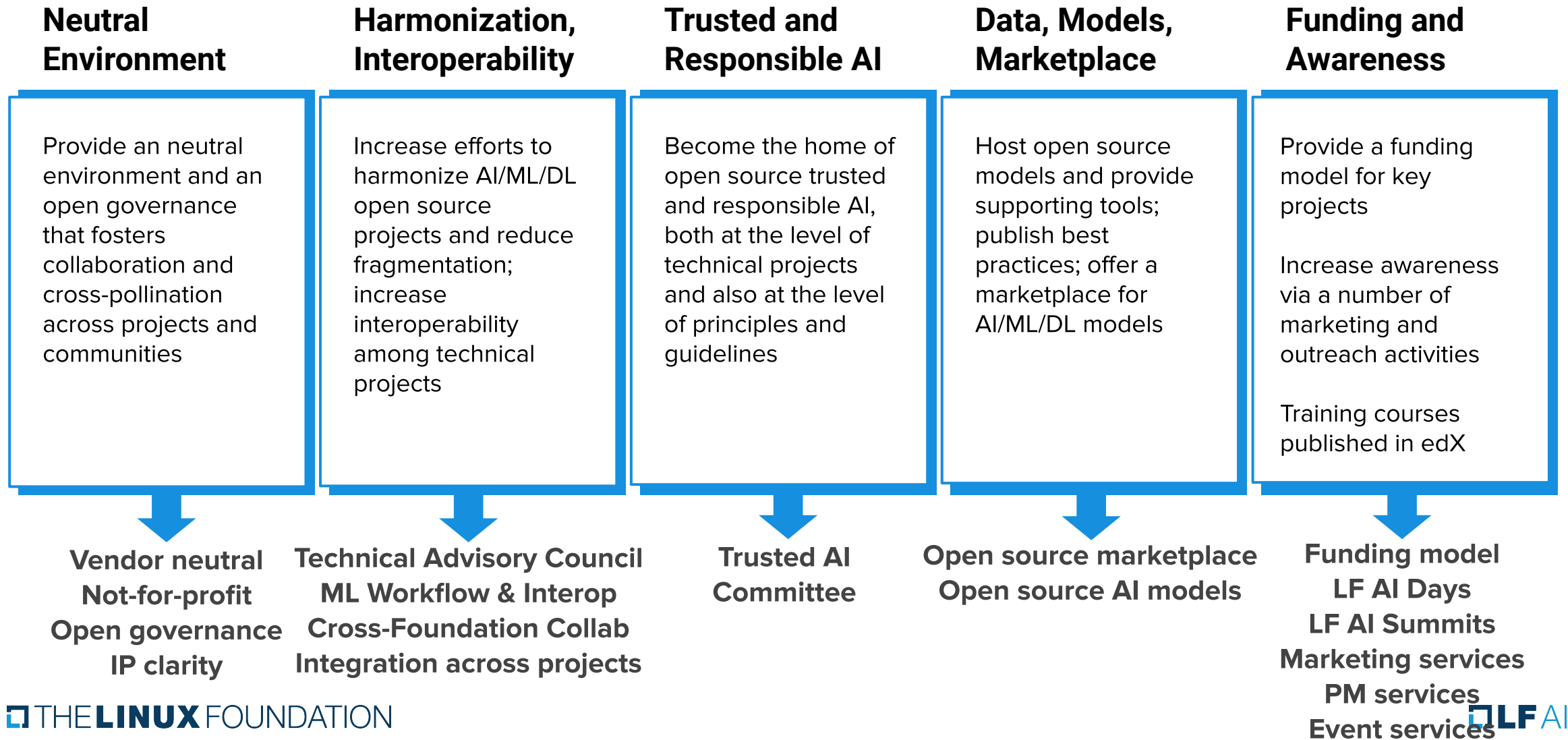


Hosted Projects

Projects have their own independent technical governance




















LF AI Major Efforts



LF AI
Members

Premier	 AT&T	 百度	 ERICSSON	 HUAWEI	NOKIA			
	 Tech Mahindra	 Tencent 腾讯	 ZILLIZ Reinvent Data Science	 ZTE				
General	 DiDi	 IBM	 inwinSTACK	 orange	 redhat	 R Studio	 XENONSTACK	
Associate	 AI for people	 AMBIANIC	 ETL	 The International Society of Service Innovation Professionals	 MAIEI	 NYU	 PennState Great Valley	 PSIT Kanpur

LF AI Hosted Projects

 Acumos ★ 10 LF Artificial Intelligence Foundation	 Angel ★ 5,927 LF Artificial Intelligence Foundation	 ONNX ★ 8,782 LF Artificial Intelligence Foundation		
 Adlik ★ 120 LF Artificial Intelligence Foundation	 Adversarial Robustness Toolkit ★ 1,641 LF Artificial Intelligence Foundation	 AI Explainability 360 ★ 604 LF Artificial Intelligence Foundation	 AI Fairness 360 ★ 1,022 LF Artificial Intelligence Foundation	 Amundsen ★ 1,106 LF Artificial Intelligence Foundation
 EDL Elastic Deep Learning ★ 91 LF Artificial Intelligence Foundation	 ForestFlow ★ 35 LF Artificial Intelligence Foundation	 Horovod ★ 9,687 LF Artificial Intelligence Foundation	 Ludwig ★ 6,888 LF Artificial Intelligence Foundation	 MARQUEZ ★ 331 LF Artificial Intelligence Foundation
 Milvus ★ 3,791 LF Artificial Intelligence Foundation	 NNStreamer ★ 258 LF Artificial Intelligence Foundation	 Pyro ★ 6,352 LF Artificial Intelligence Foundation	 sparklyr ★ 744 LF Artificial Intelligence Foundation	

What does it mean to be a Foundation project?

- › A neutral home for the project increases the willingness of developers from organizations to collaborate, contribute, and become committers
- › Endorsement by members of the LF AI's Technical Advisory Committee (TAC) is an independent signal of the quality of your project
- › Open governance model
- › Program management support
- › Access to full-time LF AI staff who are eager to assist your project
- › Access to marketing and communications services to support community and ecosystem engagement
- › Access to a full range of events services to help the project build and grow a community around it
- › Legal support ranging from hosting the trademark in a neutral organization to CLA and DCO system integration with GitHub, regular compliance scans, etc.
- › Presence across multiple geographies

Companies hosting projects in LF AI

<https://landscape.lfai.foundation/format=hosting>

amazon

AT&T

Baidu 百度

DREAMWORKS

FACEBOOK

IBM

lyft

Microsoft

R Studio

SAMSUNG

Tech
Mahindra

Tencent 腾讯

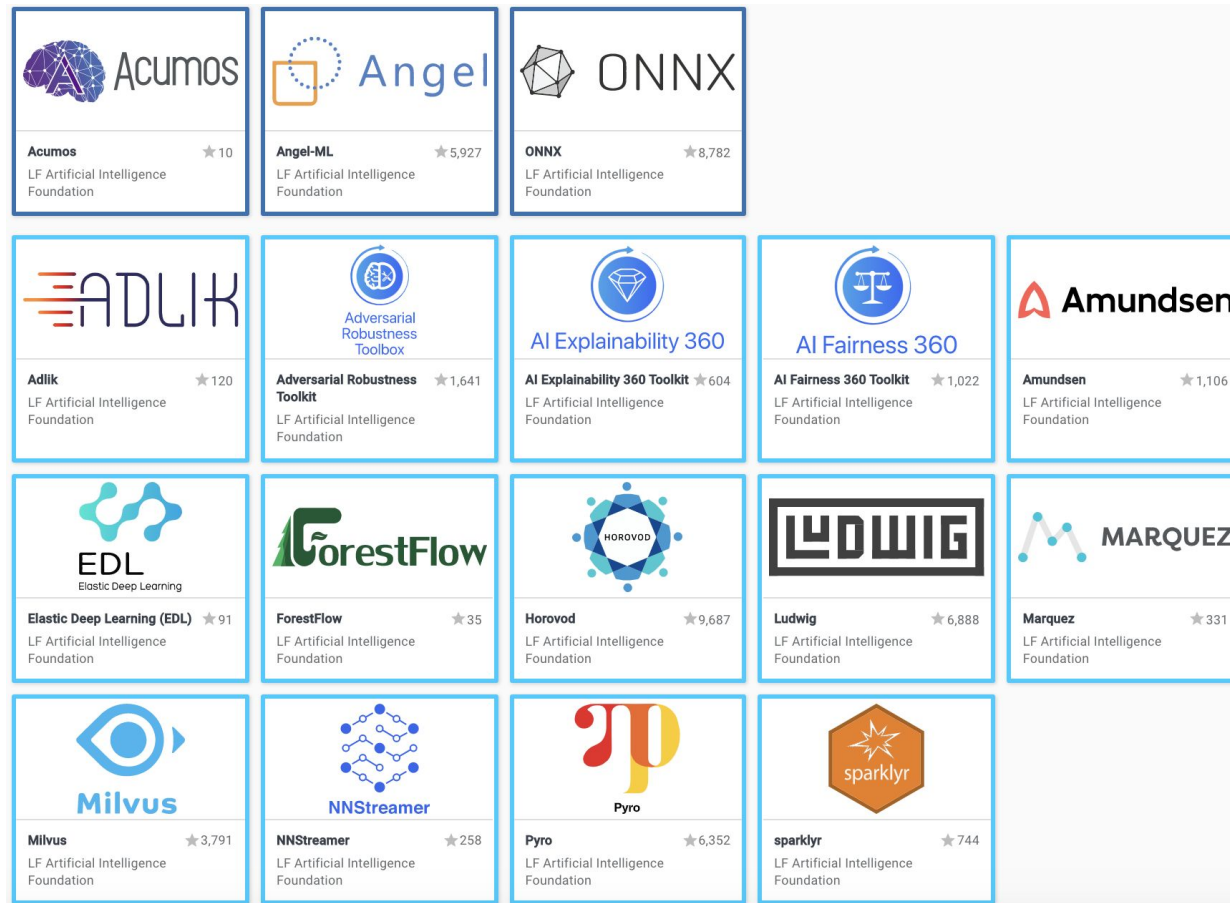
Uber

wework

ZILLIZ
Reinvent Data Science

ZTE

A Growing Community



- 17 projects, 77 repos
- Over 7.4 M LoC
- 1170+ active developer
- 49 known organizations
- 22 universities contributing code

* Data as of 08/03/2020

Strong LF AI Marketing/PR Effort

37 announcements in 2019

26 announcements in 1H 2020

- › Events announcements and promotion
- › Project release
- › Project incubation
- › New members joining
- › Project cross collaboration
- › Invited posts

LF AI provides marketing services to support community and ecosystem engagement.

- › Content ranging from the LF AI blog, white papers, posters, presentations, and more
- › Oversee blog editorial calendars and writing, editing, and/or identifying and funding freelancers to develop content
- › Help develop the project website and other required creative work

LF AI Events - Community Driven

- › LF AI Summit - co-located event with major LF conferences + Booth
- › LF AI Track at Open Source Summit (NA, EU, China) - Supporting 18-20 talks over 3 days + Booth
- › LF AI Days - a whole day (in person and virtual) hosted in collaboration with an LF AI member with audience ranging from 50-250. Multiple/year.
- › Project specific events
- › Sponsorship and booth at KubeCon
- › Strong presence & event participation in China



Incubating Projects

- › LF AI's TAC committee is responsible to voting in new incubation projects.
- › The TAC meets bi-weekly and generally booked 4-6 weeks in advance.
- › Proposing projects for incubation in LF AI:
<https://lfai.foundation/proposal-and-hosting-process/>

Project Resources

Hosted project stages and life cycle:

<https://lfai.foundation/project-stages-and-lifecycle/>

Offered services for hosted projects:

<https://lfai.foundation/services-for-projects/>

Stay Connected with LF AI

Social



[@LFAI_Foundation](https://twitter.com/LFAI_Foundation)



[LF AI Foundation](https://www.linkedin.com/company/lf-ai-foundation)

Mail Lists

- › [TAC](#) - Participate in technical governance and hear about LF AI projects
- › [Events](#) - Learn about upcoming events
- › [Announce](#) - Stay in the loop on top level Foundation announcements

Blog

- › Check the latest news on our [Blog](#)

Joining LF AI Foundation is easy!

Please follow up with Ibrahim Haddad

Web site	https://lfai.foundation
Email	info@lfai.foundation
Landscape	https://l.lfai.foundation
GitHub	https://github.com/lfai
Wiki	https://wiki.lfai.foundation
Mailing lists	https://lists.lfai.foundation/groups