

Ibrahim Haddad, Ph.D.

Executive Director

Ibrahim@LinuxFoundation.org

@IbrahimAtLinux

LF AI: Accelerating Open Source AI Innovation and Collaboration

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

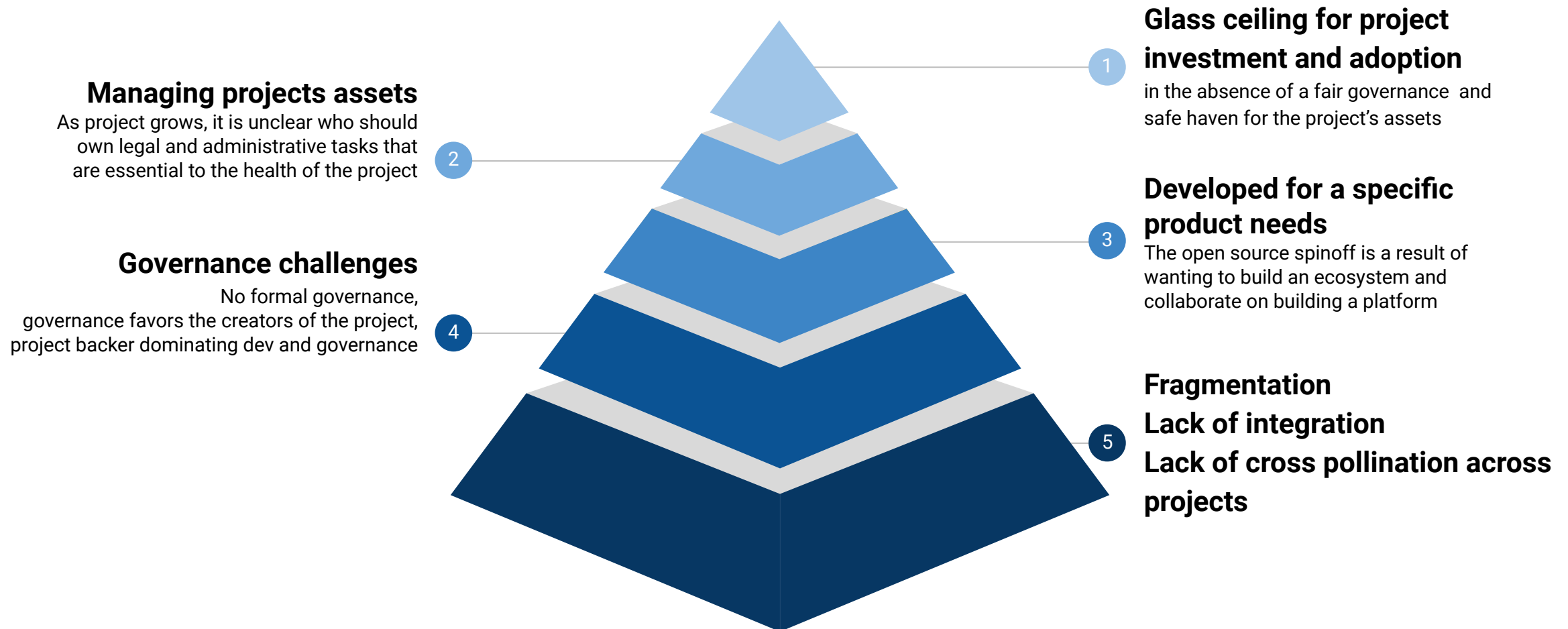
Natural Language Processing

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 integration, interoperability and capabilities across projects
2. Greater efficiency for members across various costs spent on supporting 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. Hosting projects under a single umbrella enables closer collaboration and integration across projects and is a proven recipe for building a strong open ecosystem

LF AI Structure

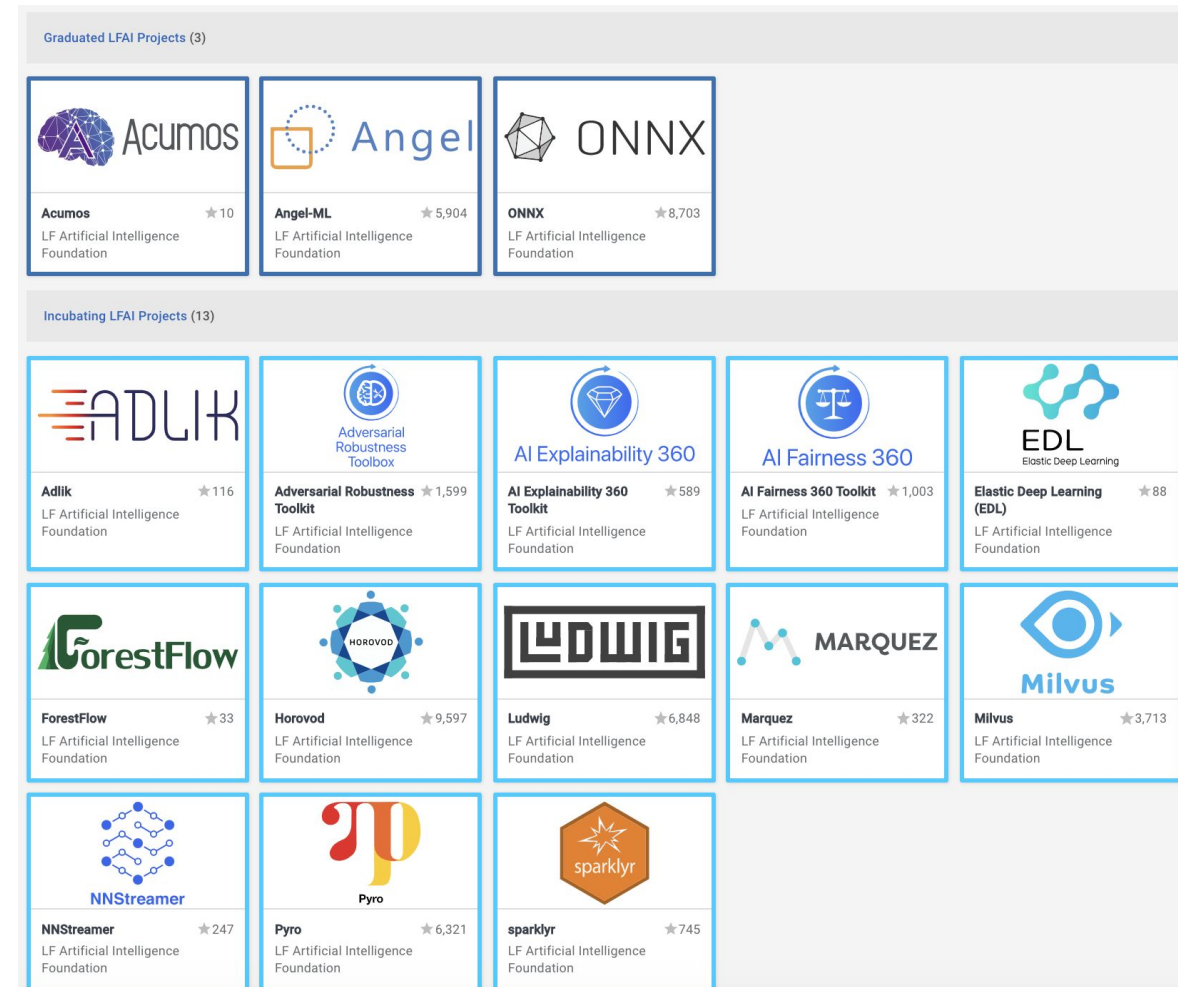
Funding Governance



Technical Coordination



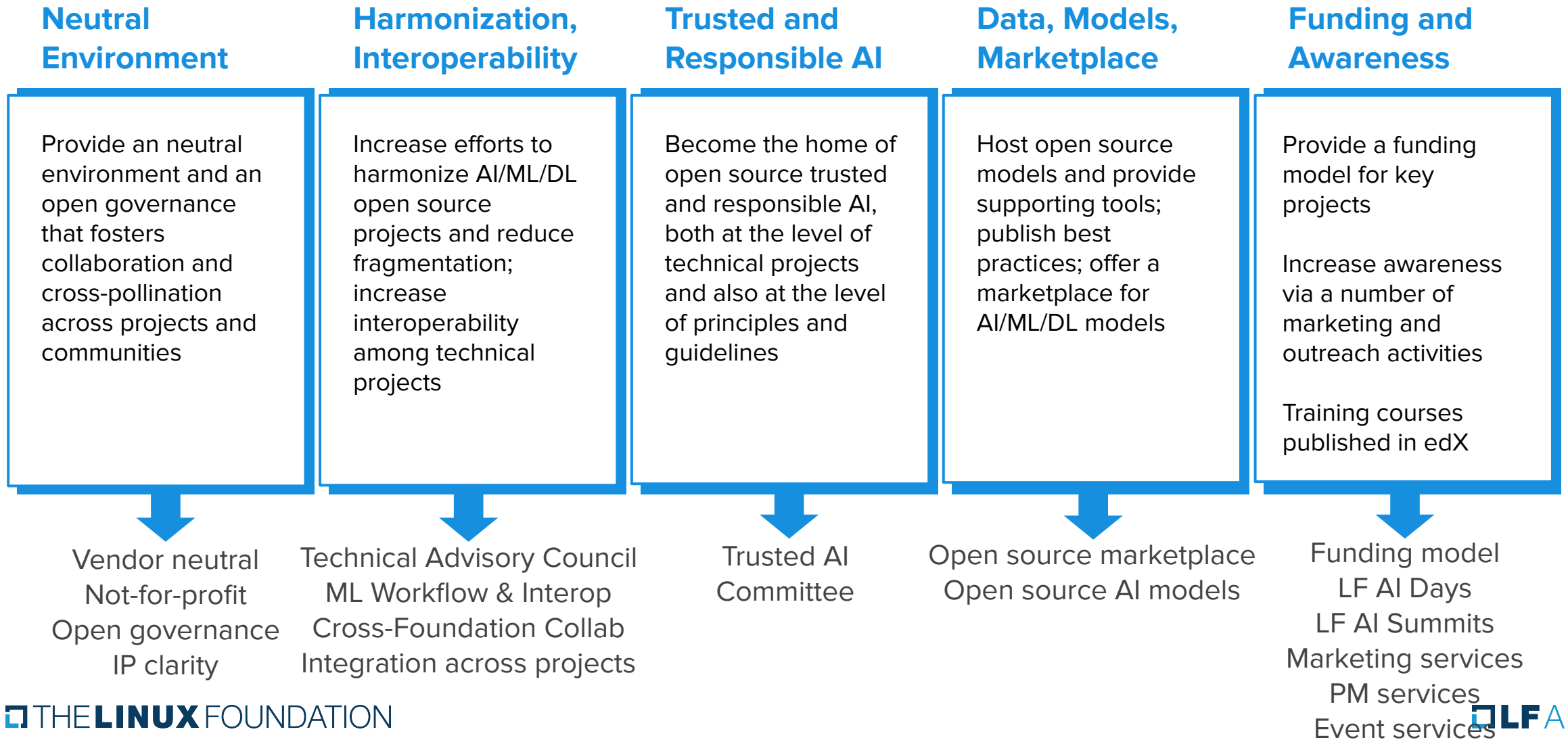
Hosted Projects

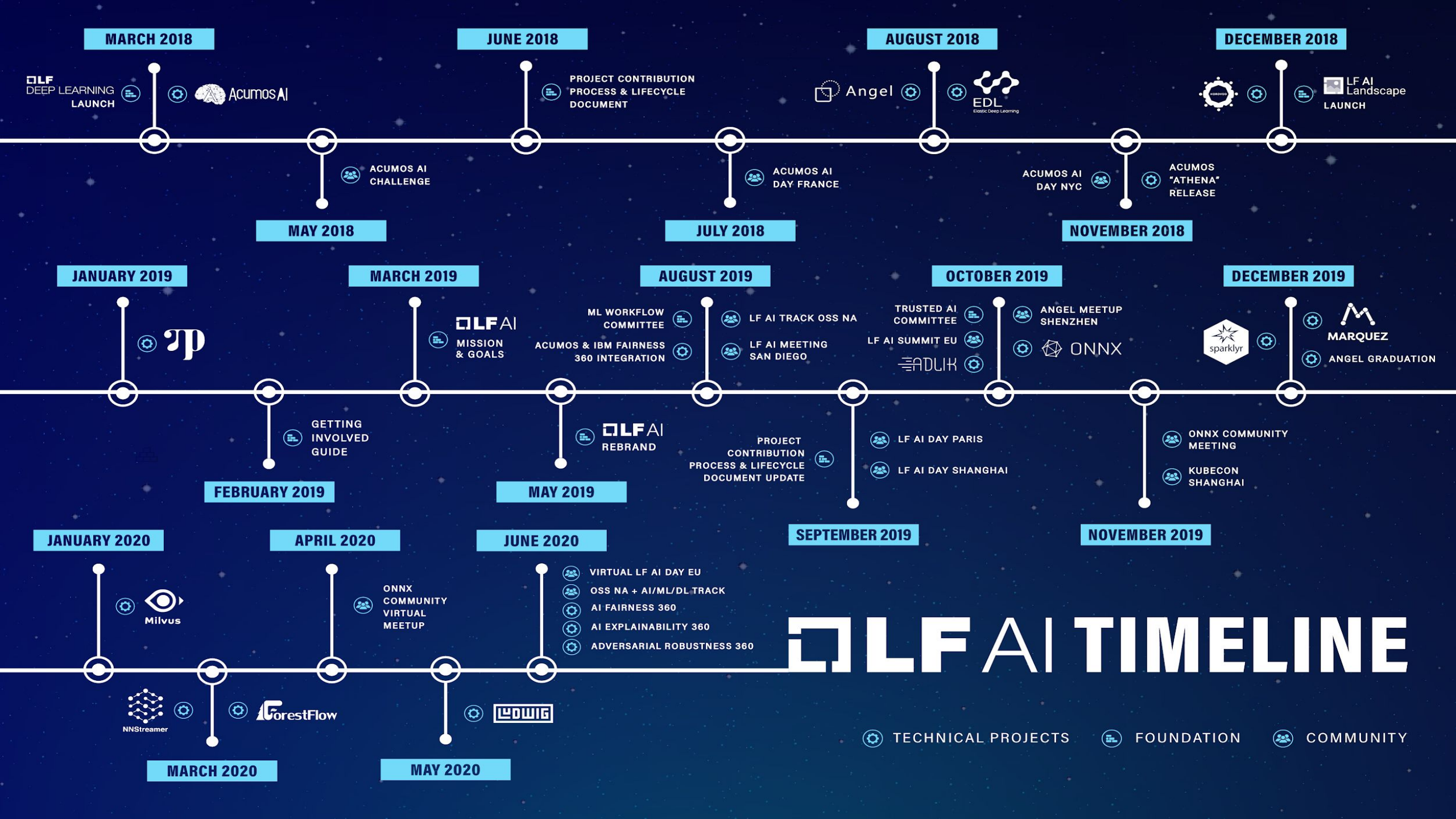


Governance

- › Foundation governance: funding effort to support technical projects hosted under the Foundation
- › Technical governance: hosted projects have their own independent technical governance
- › The Foundation's Charter is available from <https://lfai.foundation>
- › Dedicated Staff

LF AI Major Efforts






Members

Premier							
							
General							
Associate							


Projects

Graduation


Graduated LFAI Projects (3)



Acumos ★ 10
LF Artificial Intelligence Foundation




Angel-ML ★ 5,904
LF Artificial Intelligence Foundation




ONNX ★ 8,703
LF Artificial Intelligence Foundation

Incubation


Incubating LFAI Projects (13)




Adlik ★ 116
LF Artificial Intelligence Foundation




Adversarial Robustness Toolkit ★ 1,599
LF Artificial Intelligence Foundation




AI Explainability 360 Toolkit ★ 589
LF Artificial Intelligence Foundation




AI Fairness 360 Toolkit ★ 1,003
LF Artificial Intelligence Foundation




Elastic Deep Learning (EDL) ★ 88
LF Artificial Intelligence Foundation




ForestFlow ★ 33
LF Artificial Intelligence Foundation




Horovod ★ 9,597
LF Artificial Intelligence Foundation




Ludwig ★ 6,848
LF Artificial Intelligence Foundation




Marquez ★ 322
LF Artificial Intelligence Foundation




Milvus ★ 3,713
LF Artificial Intelligence Foundation



NNStreamer ★ 247
LF Artificial Intelligence Foundation



Pyro ★ 6,321
LF Artificial Intelligence Foundation



sparklyr ★ 745
LF Artificial Intelligence Foundation

Companies hosting projects in LF AI



A Growing Developer Community

Acumos

Adlik

Adversarial Robustness 360

AI Explainability 360

AI Fairness 360

Angel

EDL

ForestFlow

Horovod

Ludwig

Marquez

Milvus

nnstreamer

ONNX

Pyro

Sparklyr

You are currently tracking **7,310,710 lines of code**, committed by **1,119 developers**, from **46 known organizations**, working in **76 repos**, on **16 projects** over the last **6 years, 6 months, and 14 days**.

Universities Contributing Code to LF AI Projects



THE UNIVERSITY
OF BRITISH COLUMBIA



NEW YORK UNIVERSITY



Massachusetts Institute of Technology



UNIVERSITY OF
OXFORD



FLORIDA STATE UNIVERSITY



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/>

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

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)

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