

# Overview of the LF AI Foundation

 THE **LINUX** FOUNDATION

 **LF AI**

# What is the LF AI Foundation?

- LF AI is a Linux Foundation project founded in March 2018 to support collaboration and open source innovation in the AI, ML, and DL domains.
- LF AI members are collaborating to create a neutral environment with an open governance for harmonization and acceleration of separate technical projects focused on AI, ML, and DL technologies.

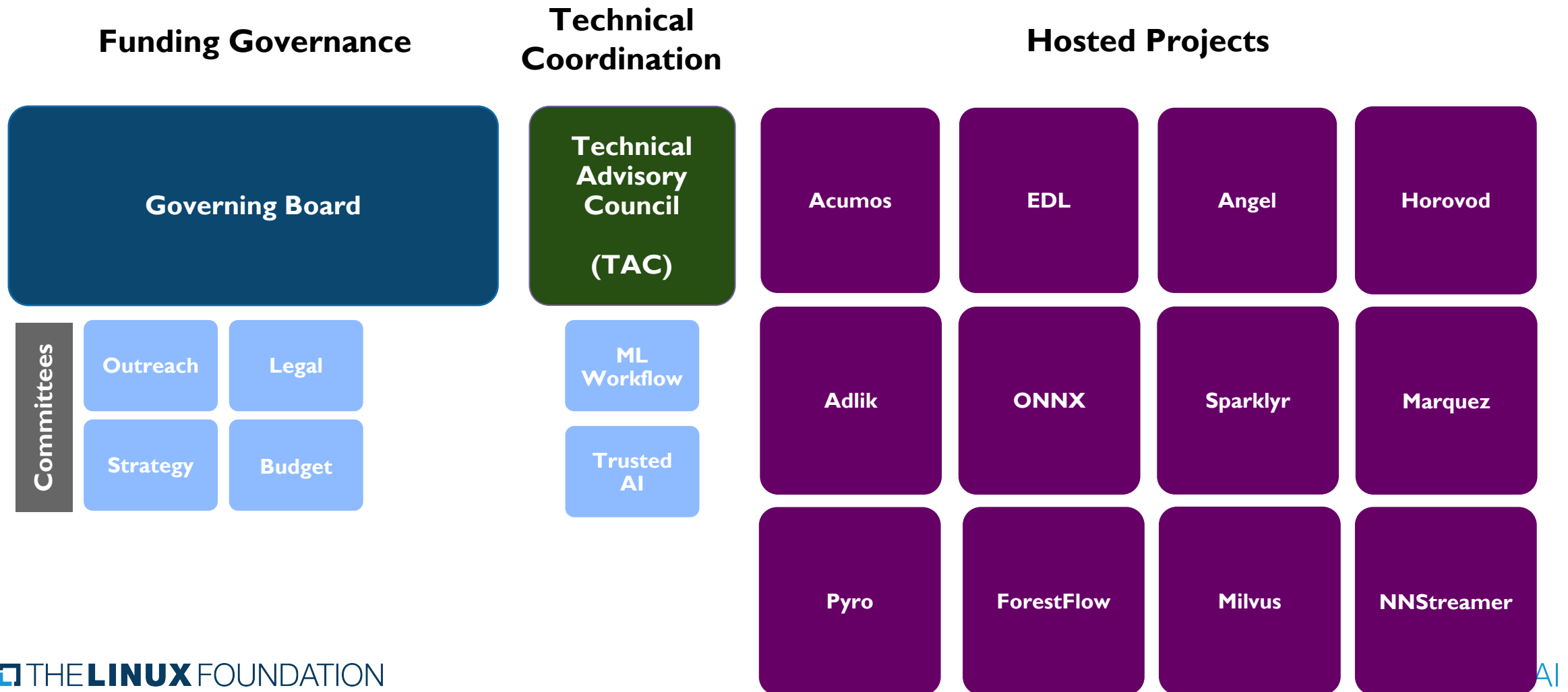
# Governance Overview

- › LF AI is a single funding effort to support technical projects hosted under the Foundation.
- › Technical projects have their own technical governance following our principle of separation of technical governance from funding governance.

# Mission




Build and support an open AI community, and drive open source innovation in the AI, ML and DL domains by enabling collaboration and the creation of new opportunities for all the members of the community

# LF AI Structure











# Members








LF AI Member Company - Premier (9)

								
<b>AT&amp;T</b> AT&T	<b>Baidu</b> Baidu	<b>Ericsson</b> Ericsson	<b>Huawei</b> Huawei Technologies	<b>Nokia</b> Nokia	<b>Tech Mahindra</b> Tech Mahindra	<b>Tencent</b> Tencent Holdings	<b>Zilliz</b> ZILLIZ	<b>ZTE</b> ZTE
MCap: \$207.2B	MCap: \$41.98B	MCap: \$29.86B		MCap: \$23.3B		MCap: \$597.79B	Funding: \$10M	MCap: \$23.94B

LF AI Member Company - General (8)


							
<b>Didi</b> Didi Chuxing	<b>Gemini Open Cloud</b> Gemini Open Cloud Computing	<b>IBM</b> IBM	<b>inwinSTACK</b> inwinSTACK	<b>Orange</b> Orange	<b>Red Hat</b> Red Hat	<b>RStudio</b> RStudio	<b>Xenonstack</b> XenonStack
Funding: \$21.24B		MCap: \$114.58B		MCap: \$30.91B	MCap: \$104.05B		

LF AI Member Company - Associate (7)


						
<b>AI for People</b> AI For People	<b>Ambianic</b> Ambianic	<b>Institute of Ethical AI and Machine Learning</b> The Institute for Ethical AI & Machine Learning	<b>International Society of Service Innovation Professionals</b> International Society of Service Innovation Professionals	<b>Montreal AI Ethics Institute</b> Montreal AI Ethics Institute	<b>New York University</b> New York University	<b>Pranveer Singh Institute Of Technology</b> Pranveer Singh Institute Of Technology
					Funding: \$5M	

# Projects


## Graduation



**Acumos** ★ 10  
LF Artificial Intelligence Foundation




**Angel**  
Angel-ML ★ 5,743  
LF Artificial Intelligence Foundation




**ONNX** ★ 8,078  
LF Artificial Intelligence Foundation


## Incubation




**Adlik** ★ 88  
LF Artificial Intelligence Foundation




**EDL**  
Elastic Deep Learning ★ 63  
LF Artificial Intelligence Foundation




**ForestFlow** ★ 7  
LF Artificial Intelligence Foundation




**Horovod** ★ 8,831  
LF Artificial Intelligence Foundation




**Marquez** ★ 239  
LF Artificial Intelligence Foundation




**Milvus** ★ 2,902  
LF Artificial Intelligence Foundation



**NNStreamer** ★ 185  
LF Artificial Intelligence Foundation



**Pyro** ★ 6,087  
LF Artificial Intelligence Foundation



**sparklyr** ★ 724  
LF Artificial Intelligence Foundation

# ML Workflow Committee

## Participants

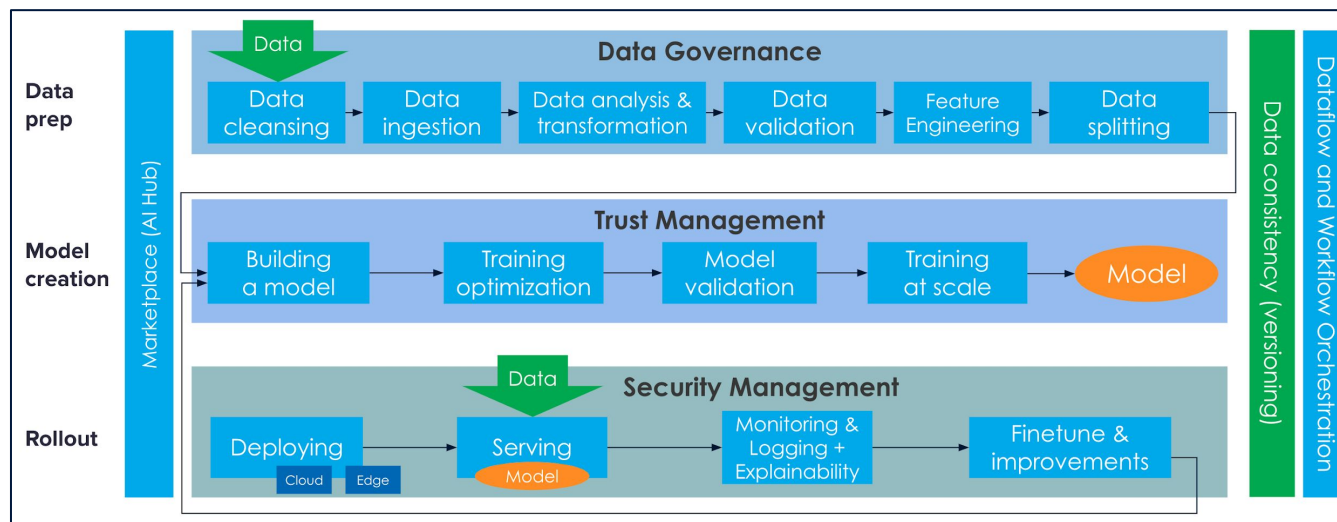
- › Amdocs
- › GOC
- › IBM
- › IFC
- › ITU
- › Orange
- › Seldon
- › Siomtics
- › SyLabs.io
- › TechM
- › Tencent
- › Verizon
- › WBG

Anyone can  
participate.

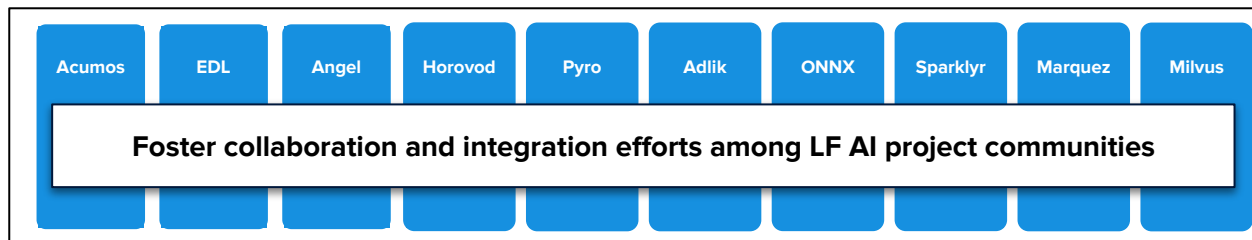
 THE **LINUX** FOUNDATION

## Scope

### 1. Provide a reference ML workflow architecture and implementation



### 2. Increase interoperability and integration across technical projects



<https://wiki.lfai.foundation/display/DL/ML+Workflow+Committee>



# Trusted AI Committee

## Participants

- › Amdocs
- › ATT
- › Ericsson
- › ETL
- › Huawei
- › IBM
- › Orange
- › TechM
- › Tencent

**Open to members.**

## Scope

1. Define policies, guidelines, tooling and use cases by industry to create responsible and trusted AI
2. Create a badging process for open source projects that meet the Trusted AI policies/guidelines as defined by LF AI

## Two main efforts:

1. Principles: Define ethics, guidelines and principles for Trusted AI
2. Use Cases: Define and implement trusted AI use cases within different AI projects and industry domains

# Hosting Projects under LF AI: Project Contribution Process

<https://github.com/lfai/proposing-projects>

# LF AI Project Hosting Requirements

The project must:

- Use an approved OSI open source license
- Be supported by a LF AI member
- Fit within the mission and scope of LF AI
- Allow neutral ownership of project assets such as a trademark, domain or GitHub account (the community can define rules and manage them)
- Have a neutral governance that allows anyone to participate in the technical community, whether or not a financial member or supporter of the project

# Why host a project under an open source foundation?

1. You believe the project will gain wider community adoption if it's no longer solely affiliated with the corporate partner.
2. Several companies are working on very similar projects, and transferring management to an open source foundation would unite people under a common project.
3. There are legal or administrative tasks essential to the health of the project, and it's not clear which current participant should own these tasks. These types of needs typically only arise after a project has already become reasonably established, with an active contributor community and often one or more dedicated corporate partners.

# On-boarding Projects into LF AI

- › Projects are on-boarded and progress pursuant to the LF AI Foundation's Project Lifecycle and Contribution Process.
  - › Three stages: Incubation, Graduation and Emerituis.
  - › These documents can be found on GitHub:  
<https://github.com/lfai/proposing-projects/>

# LF AI Project Maturities

## › Incubation

Projects join LF AI as incubation by meeting the requirements set forth in the “Project Process and Lifecycle Document”.

TAC Vote.

## › Graduation

Incubation requirements.

Additional requirements as set in the “Project Process Lifecycle Document”.

TAC Vote + GB Vote.

## › Emerituis

Emeritus projects are projects which the maintainers feel have reached or are nearing end-of-life. Emeritus projects have contributed to the ecosystem, but are not necessarily recommended for modern development as there may be more actively maintained choices.

# Criteria to Accept Incubation Project Under LF AI

- The project uses an OSI-approved open source license
- The project does not have dependencies on components that are either proprietary or licensed under a non OSI-approved license
- Submit a completed Project Contribution Proposal to the TAC via a Github pull request (<https://github.com/lfai/proposing-projects/tree/master/proposals>) along with a short and a short email notification to info@lfai.foundation
- Provide such additional information as the TAC or GB may reasonably request
- Demonstrate a substantial ongoing flow of commits and merged contributions
- Have a healthy number of committers. A committer is defined as someone with the commit bit; i.e., someone who can accept contributions to some or all of the project
- Be deemed by the TAC and GB to add value to the artificial intelligence, machine learning and/or deep learning space and to fall within the mission and scope of LF AI
- Agree to transfer any relevant trademarks to The Linux Foundation

# Criteria to Accept Graduation Project Under LF AI

In addition to the Incubation stage requirements, a project must meet these requirements:

1. Have a healthy number of committers from at least two organizations
2. Have achieved and maintained a Core Infrastructure Initiative Best Practices Badge
3. Demonstrate a substantial ongoing flow of commits and merged contributions
4. Document current project owners and current and emeritus committers in OWNERS.md and COMMITTERS.md files; copy of the project's charter (or other authorized governance document) shall be included or linked to in a GOVERNANCE.md or in a similar file
5. Receive the affirmative vote of two-thirds of the TAC and the affirmative vote of the GB



# Transitioning from Incubation to Graduation

- The TAC will undertake an annual review of all LF AI projects to assess whether each Incubation Stage project is making adequate progress towards the Graduation stage and whether each Graduation Stage project is maintaining progress to remain at Graduation level.
- The suggested time frame for the review is to start on September 1st and ends on October 31st and should end by Oct 31 with a set of recommendations for each project to improve and/or a recommendation to the GB on moving a project across stages.
- Projects can be provided with an extension of time in their stage (up to the discretion of the TAC).
- Any project may be moved to Emeritus stage by affirmative vote of the TAC, provided that the transition has secured:
  - An affirmative  $\frac{2}{3}$  vote of the TAC
  - An affirmative  $\frac{2}{3}$  vote of the GB

# Benefits - Apply to Incubation and Graduation Projects

- Larger community, larger pipeline of potential customers
- Validation from trusted source
- Scalable and neutral governance
- Neutral hosting of the project's trademark
- Marketing and awareness
- Collaboration opportunities with other LF AI projects
- Compliance scans
- IT enablement (specifics depend on project level)

# Specific Benefits for Incubation Projects

- The project has the right to refer to the project as an “LF AI Foundation Incubation Project”
- Appointment of an existing TAC member that will act as a sponsor of the project and provide recommendations regarding governance best practices
- Access to LF AI booth space at various events for demo purposes based on availability

# Specific Benefits for Graduation Projects

- The project has the right to refer to the project as an “LF AI Graduation Project”, which signals to the market that the project has reached a high level of technical maturity with confidence in its and readiness for deployment
- Projects designed as Graduation Projects by the GB get a voting seat on the TAC
- Graduation projects are eligible to request and receive support contingent on GB approval. The ability for a company to be represented on the GB and influence the internal GB process is highly beneficial to projects making such requests
- Priority access to LF AI booth space at various events for demo purposes
- Graduation projects have a technical lead appointed for representation of the project to the TAC

# Contact Us!

- › LF AI is actively reaching out to open source AI/ML/DL projects for contribution and collaboration. If you have a project that could benefit from:
  - › Community building
  - › Marketing and brand outreach strategies
  - › Developer support
  - › Collaboration with other projects
- › [info@lfai.foundation](mailto:info@lfai.foundation)

# Joining the LF AI Foundation

# Membership Benefits

Organizations join **LF AI** because they want to take an active role in supporting the growth and evolution of the open source **AI/ML/DL** ecosystem.

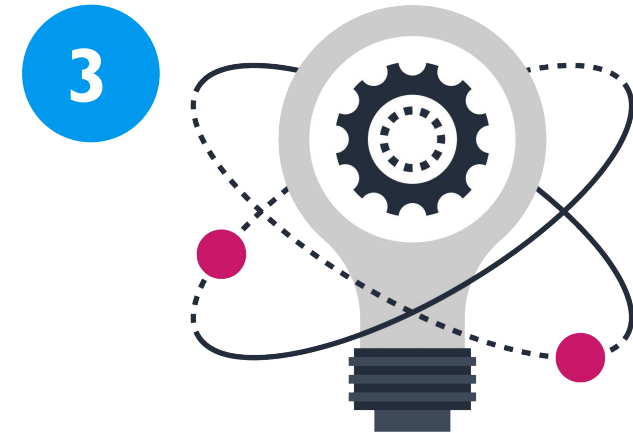
## Membership Provides:



Marketing Amplification  
and Brand Awareness



Community Engagement



Thought Leadership

# LF AI Foundation 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 Limited to academic and nonprofit institutions respectively and requires approval by the Governing Board	



# Premier Membership

Highest tier of membership – For organizations who contribute heavily to open source AI, ML and DL and bring in their own projects to be hosted at the Foundation. They work in concert with LF AI + LF team members. These companies want to take the most active role in enabling open source AI, ML and DL.

## Premier members are eligible to:

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

- Appoint one representative to the LF AI Governing Board.
- Appoint one representative as a voting member in any subcommittees or activities of the Governing Board.
- Enjoy most prominent placement in displays of membership including website and marketing materials.
- Increased access to Linux Foundation's invitation-only Open Source Leadership Summit.
- Create an individualized press release upon membership announcement with the LF AI PR team.
- Receive ongoing, individual engagement and guidance from LF AI Executive Director and staff.

# General Membership

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

## General members are eligible to:

- Participate in elections to appoint one representative to the LF AI Governing Board per every ten General members, up to three maximum General representatives.
- Receive greater insight into LF AI strategy and project roadmaps through increased engagement with the LF AI Executive Director and staff.
- Create an individualized press release upon membership announcement with the LF AI PR team.
- Participate in all Marketing, Community, Thought Leadership opportunities.
- Demonstrate your support for LF AI by displaying your logo on the LF AI website and in marketing materials.

# Associate Membership

The Associate membership is limited to academic and non-profit institutions respectively.

## 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 website and in marketing materials.
- Feature your organization in the new member announcement.

# Getting Involved in LF AI

# Get Involved with LF AI 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 projects

☒ Provide your testing and deployment feedback via appropriate project channel

☒ Start a local User Group Meetup

# Get Involved with the LF AI Technical Advisory Council

☒ Support TAC leadership in inviting speakers to present for the LF AI 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 inclusion in LF AI; recommend new projects

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

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

# Get Involved with LF AI Outreach Committee (OC)

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

☒ Marketing and PR support for demos at meetups and events

☒ Contribute to the LF AI landscape, promote in talks

☒ Identify speaking opportunities and help secure speakers from the LF AI 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 based deployments

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

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

☒ Volunteer to host an LF AI Day and Project developer events

☒ Support LF AI marketing and PR staff

# Get Involved with the LF AI Trusted AI Committee

✓ Join the committee as a representative of your company

✓ Join the Trusted AI bi-weekly conference calls and contribute to ongoing efforts

✓ Promote the work of the Trusted AI committee, invite your collaborators to participate

✓ Contribute to the LF AI landscape, promote in talks

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

✓ Subscribe to the mailing list and participate in discussions

✓ Host your Ethics related projects in the LF AI Foundation

✓ Help secure user stories about LF AI based deployments

✓ Invite prominent researchers and developers in the space to speak to the LF AI community





# LF AI Landscape

Help us improve the landscape:  
<https://github.com/lfai/lfai-landscape/>

## Security & Privacy

## Governance

DEMIA.NET/EGEA  
LICENSE AGREEMENT

EGEA

## Notebook Environment

A grid of logos for various data science and machine learning tools and platforms. The logos are arranged in a 4x3 grid, with the bottom-right cell empty. The logos include: Apache Zeppelin, BeakerX, colab, IPython, Jupyter, IBM, Polynote, H2O, Stencila, and Streamlit.

## Associate

# Joining LF AI Foundation is easy!

Please follow up with [Ibrahim Haddad](#)

Web site: <https://lfai.foundation>

Landscape: <https://l.lfai.foundation>

GitHub: <https://github.com/lfai>

Wiki: <https://wiki.lfai.foundation/>