

Discussion for sustainable Fast ML community

Guide: Nhan Tran, Fermilab

Outline

- A quick recap of past progress
 - Why non-profit
 - Envisioned structure
- This past year, evolution of thinking
- Next steps and open discussion

Reflections - a retrospective

- ▶ Essence of community:
 - ▶ Sharing open-source tools, techniques, and enabling collaboration encouraging cross-discipline research
 - ▶ User- and application-driven focus to enable science and technology research
 - ▶ Mostly self-governed with loose boundaries and small activation energy
- ▶ A lot of growth since 2019!
 - ▶ In the spirit of research, collaboration, and progress

Reflections - a retrospective

- In short, the value proposition is us - the people and the community!

Why evolve?

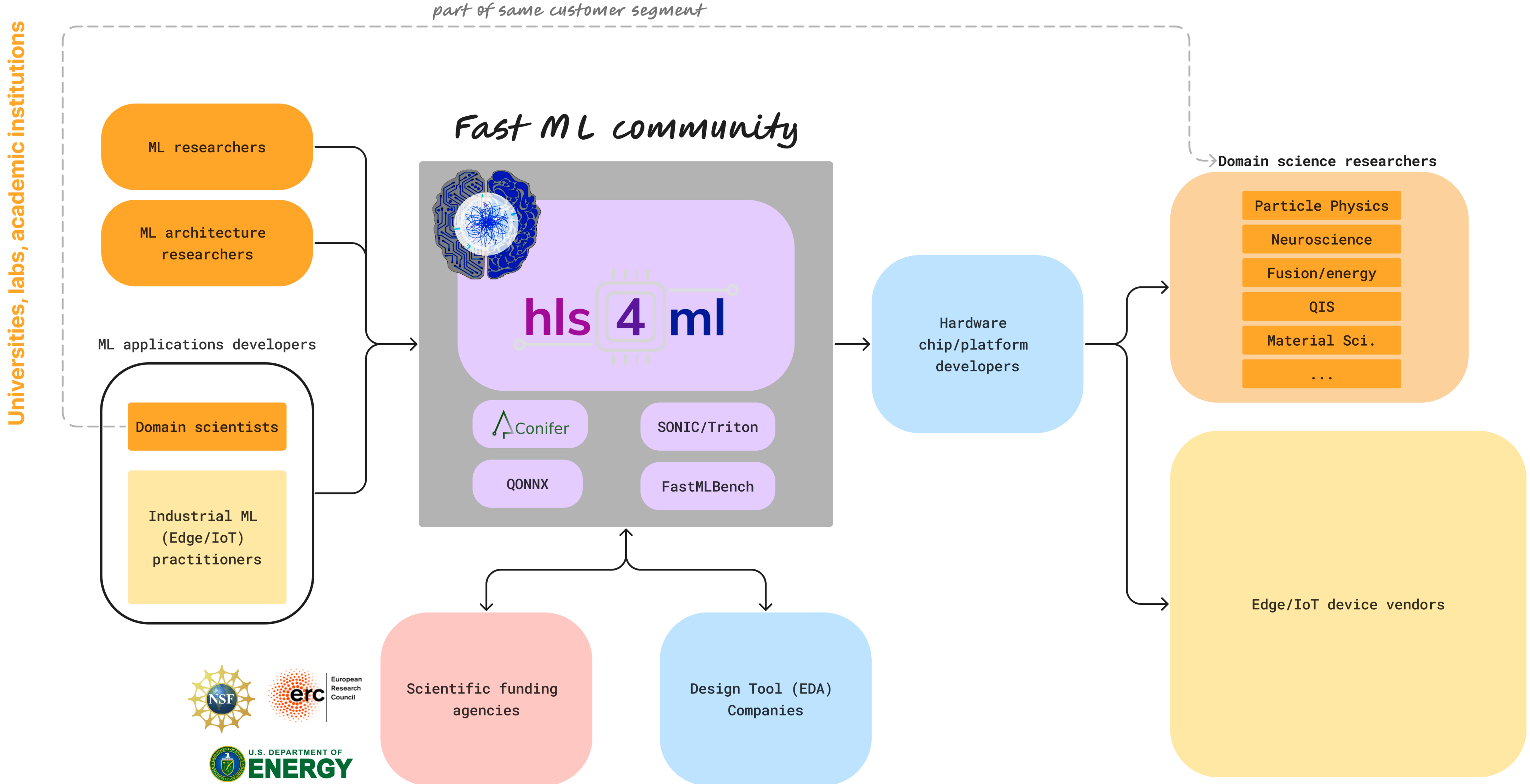
- ▶ The community enables broader impacts of research into common tools, techniques, and methods
- ▶ But in the current model, support of the community and the tools is voluntary and understaffed
 - ▶ Focus has been **research-driven** by government funding agencies
 - ▶ Training, education, and maintenance is largely voluntary and understaffed
- ▶ Current approach is scaled to its limits, but we want to continue making a big impact on science and technology research!

Why evolve?

Adapted from NSF I-Corps exercise

	Current situation	Future ideal
Organization type	Do-ocracy	?
Decision-making	Community consensus (kind of)	?
How are maintainers added?	semi-randomly	?
Who owns the domain?	Nhan	?
Does your current community know how your governance works?	No	Yes
Is your governance model hindering sustainability?	Yes	No

Ecosystem



Non-profit foundations

- ▶ Through the I-Corps program, we identified sponsored, charitable non-profits as a business model that mapped well on to the current community
- ▶ There have been discussions in the past about for-profit startups; a non-profit would not preclude others from doing a startup

A non-profit organization is a group organized for purposes other than generating profit focus is on its **mission**

501(c)(3) charitable nonprofit organizations typically are exempt from paying income and property taxes and donations to their work are deductible on federal and most state tax returns. Policymakers regularly review and propose changes to exemptions, operational rules, and giving incentives

By-laws, concept

- › Builds off some examples: Chips Alliance, AlamaLinux, BETR
- › Current approach
 - › Two document approach
 - › By-laws: higher level, vision of the foundation and how it's governed
 - › Operational Guidelines: more detailed procedure and protocols for how the foundation operates day-to-day
 - › By-laws intended to be brief, for clarity and simplicity
 - › Without painting ourselves into a legal corner

By-laws, v0

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version 0

FASTML TECHNOLOGY COMMONS

By-laws

As adopted on September 4, 2025

ARTICLE I MISSION AND SCOPE

§1 NAME

The name of the corporation is "Fast ML Technology Commons" and the corporation is referred to in these By-laws as the "Foundation".

§2 MISSION

The purpose of the Foundation is to cultivate resources in support of the multi-disciplinary *Fast ML for Science community* of domain science, machine learning (ML), and engineering researchers for the advancement of accelerated and autonomous scientific experimentation. These resources will be used to share, support, and maintain the community's shared research, software tools, and hardware platforms for scientific applications with the highest standards of inclusiveness, openness, accountability, and transparency.

§3 SCOPE OF SERVICES

The Foundation engages in activities that aim to achieve the mission. Primary activities include, but are not limited to:

- Organization and administration of regular meetings, events, and conferences to encourage the cross-pollination of ideas within the community and foster an inclusive environment for promoting new, multi-disciplinary collaborations
- Management of programs and platforms to create common solutions that benefit the community such as benchmarking challenges and internship opportunities
- Development and support of open-source software packages, firmware tools, and hardware platforms that increase productivity and accessibility to novel research techniques
- Community engagement and collection of feedback to ensure that activities are aligned with the needs and goals of community members

Mission

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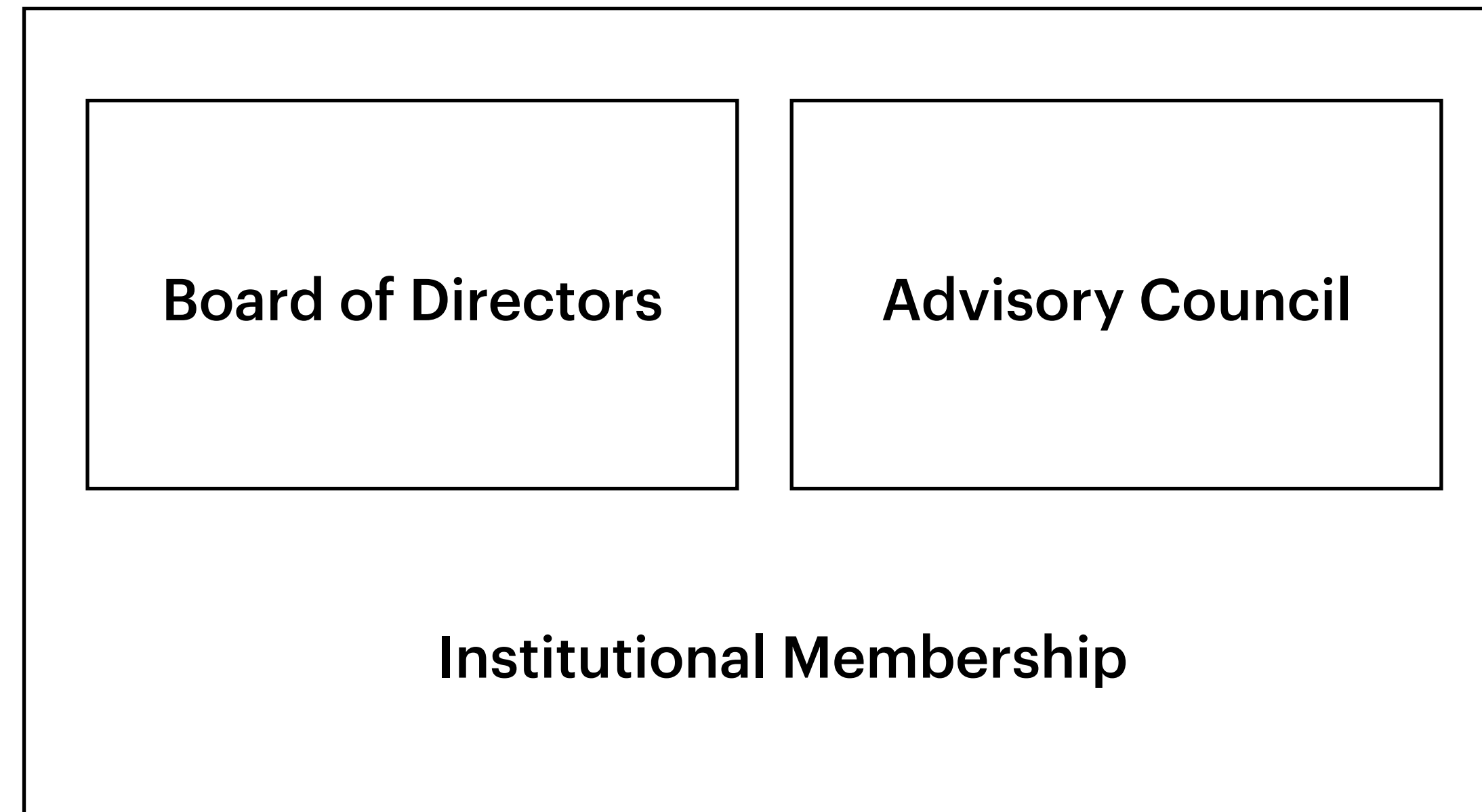
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Governance & Organization



Board of Directors and Advisory Council provide a system of checks and balances
(Very common in non-profits)

Governance and Organization

- **Institutional membership types**
 - Academic/Non-Profit (ANP)
 - Governing ANP members with representation on Advisory Council
 - Open ANP membership is free, but they are not involved in governance of Foundation
 - Industry
 - Membership fees and roles will be defined by Operational Guidelines because these are tightly coupled to the budget and annual operating plan

Governance and Organization

▸ **Board of Directors**

- Chair - overall leadership and guidance of day-to-day operations and finances
- Vice Chair - supports Chair and other board members in their responsibilities
- Treasurer - oversees financial management
- Secretary - maintain Board and Advisory Council meetings and minutes
- This represents a first proposal of members, based on feedback there could be more members
- This group meets monthly
- Board of Directors members elected every 2 years by Advisory Council

Governance and Organization

▸ **Advisory Council**

- Oversees mission, scientific value, and fiscal responsibility of the Foundation
- Gives explicit approval for: By-laws, election of Board of Directors, and annual membership fees
- Only 1 Advisory Council member per Institutional member
- Quarterly meetings between Board of Directors and Advisory Council
 - Once per year, Advisory Council will review:
 - Current year operating plan, Five-year strategic plan, Current year operating budget, Annual financial statements

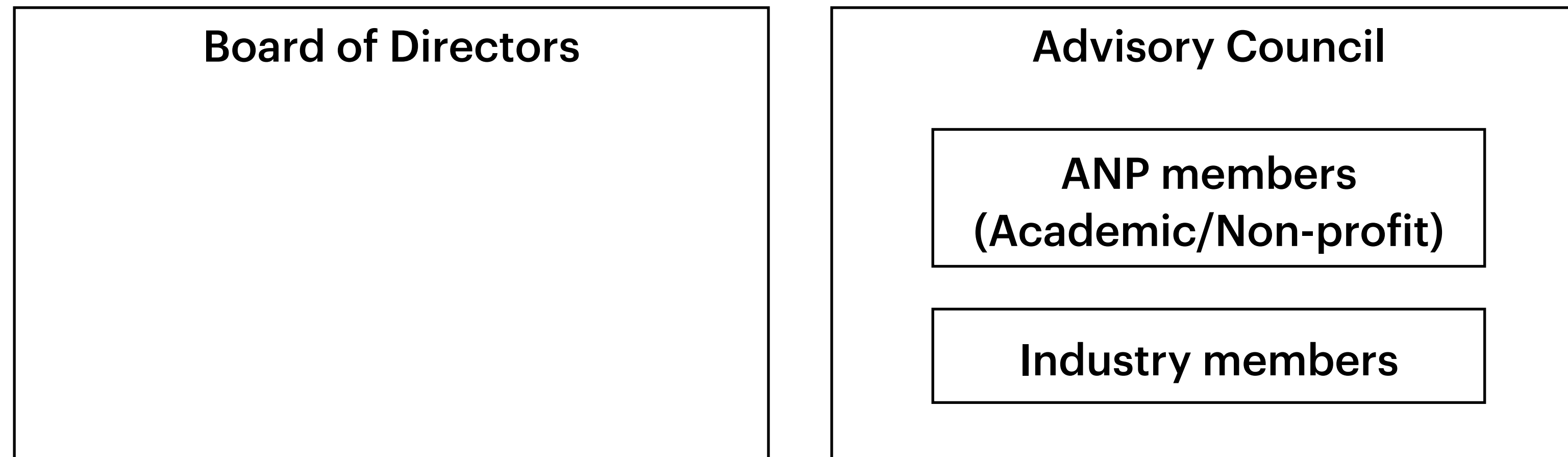
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Past year and evolution of thinking

- › Not much has happened for many reasons
 - › But reinforces simplicity in the plan going forward
- › NSF POSE grant got no-cost-extension
- › I cannot be officially involved (i.e. board of directors)
- › CERN input on structure, explicit ANP veto
- › Re: simplicity - reduce operational complexity through tighter integration with annual conference

Governance & Organization



Advisory Council membership

- ▶ ANP:
 - ▶ Idea from last year - community membership through registration fee (very common in conferences)
 - ▶ Our registration fees are very low!
 - ▶ Registration by senior member of institution (non-student/postdoc) means eligibility for Advisory Council
 - ▶ Must have been registered in at least one of past 2 conferences
 - ▶ 1 member per institution
 - ▶ Opt in
- ▶ Industry
 - ▶ Through conference sponsorship

Community resources

Industry

- ▶ Conference sponsorship are annual fees
- ▶ Unnecessarily complex to split
- ▶ Benefits:
 - ▶ Events/marketing
 - ▶ Input to advisory council
 - ▶ Training, education, support

Academic/non-profit

- ▶ Fraction of registration fee



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Next steps

- › Update, streamline By-laws
- › Define Board of Directors
- › Start paperwork

Paperwork

- ▶ Assumption, do this in US
- ▶ Depends on state - suggested to do in Delaware due to requirement for only 1 director
 - ▶ e.g. IL requires 3
- ▶ Then need
 - ▶ By-laws
 - ▶ Certificate of incorporation
 - ▶ EIN application (tax number) - to get bank account

Immediate goals

- › Establish the LLC
- › Establish operational procedures assuming Fast ML 2026 launch date
- › Initial resource baseline
 - › Support the Slack workspace, tutorials, webpage upkeep

Discussion notes

- Living notes here:
 - Mechanical question — how to collect money?
 - IEEE model for forward funding the conference?
 - Final by-laws have to be run by stakeholders
 - e.g. NGT could not support
 - One more board position is the conference committee chair, ex-officio
- Next steps:
 - Call for nominees for board
 - Assemble advisory council to start
 - Do bids for hosting next year
 - Done by end of year