

SIMON-INSTITUTE Federation

White Paper

Defining an invitation-only ten-university federation for governed AI, hybrid computing, and quantum collaboration

Prepared for invited-university review

VERSION 1.2	DATE 14 April 2026
AUDIENCE Invited universities and governing review bodies	USE Working white paper for founding-federation evaluation

INVITATION PACKET FRAMING

This draft is written as an invited-university packet rather than a public-facing brochure.

It reflects the current working assumptions confirmed for this version: ten universities own SIMON-INSTITUTE, Inc. equally; voting is one school, one vote; Papa Bear is provider-neutral; and member schools host mirrored federation components.

Pricing and subscription mechanics are intentionally omitted. Final legal documents and board actions will control.

Working source basis: federation board packet, participation proposal, Goldilocks platform white paper, collaboration narrative, prompting standards memo, and governance RACI drafts.

White Paper at a Glance

Invited-university summary of the ownership model, voting rules, collaboration boundary, and recommended governance design.

This draft packages the SIMON-INSTITUTE Federation concept into a board-ready explanation for invited universities. It explains who owns the federation, how votes work, what collaboration is permitted, how federation programs move from idea to release, and which matters remain reserved for final Board action.

10 FOUNDING UNIVERSITIES	10% OWNERSHIP EACH	1 SCHOOL = ONE VOTE	7 VOTES FOR RESERVED MATTERS
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Question	Working answer in this draft
Ownership model	Ten universities are the only owners of SIMON-INSTITUTE, Inc.; each holds 10%. SIMON-INSTITUTE, Inc. owns 100% of SIMON-INSTITUTE Federation.
Voting rule	One school, one vote.
Reserved matters	Risk-tier expansion, IP policy, and membership replacement require a seven-vote supermajority.
Vacancy treatment	A vacant university interest is held as treasury until a replacement university is invited and admitted.
Technical boundary	Baby Bear and Mama Bear stay local; provider-neutral Papa Bear supports approved cross-institution collaboration.
Academic governance	A separate Academic Council recommends standards and continuity decisions to the Board of Governors for ratification.

BOARD DECISION STILL REQUIRED

Final Board seat composition remains for the seated Board of Regents to determine.

This paper recommends, but does not require, a separate Federation IP entity.

The paper recommends a Board of Governors plus Academic Council operating structure, subject to final charter language.

1. Executive Summary

SIMON-INSTITUTE Federation is an invitation-only federation of ten geographically diverse universities created to establish a durable operating model for multi-institution education, research, and program release in artificial intelligence, hybrid computing, quantum-enabled discovery, and related advanced intelligence programs. The Federation is designed to solve a practical scaling problem: universities are expected to work at the pace of next-generation AI and emerging quantum capability, yet most institutions still operate in isolation, with inconsistent tooling, inconsistent governance, and informal sharing practices that are difficult to audit, difficult to reproduce, and difficult to secure.

The Federation answers that problem by standardizing the collaboration boundary rather than forcing a single internal architecture on every campus. Each university keeps authority over its people, local systems, local data, and local compliance decisions. What becomes common across the network is the path by which reusable inter-school work is proposed, reviewed, executed, evaluated, and released. In operational terms, that means every reusable federation program follows the same five-artifact path - Research Brief, Prompt Contract, Run Request, Evaluation Report, and Release Record - and those artifacts are stored in a Federation Registry that serves as the system of record for shared programs.

The ownership model is intentionally simple. Ten universities are the only owners of SIMON-INSTITUTE, Inc., each at 10 percent. SIMON-INSTITUTE, Inc. owns 100 percent of SIMON-INSTITUTE Federation, the operating federation entity. Voting follows one school, one vote. Three matters are reserved for a seven-vote supermajority: risk-tier expansion, IP policy, and membership replacement. If a university seat becomes vacant, the related 10 percent interest is held as treasury by SIMON-INSTITUTE, Inc. until a replacement university is invited and admitted. This preserves the ten-university architecture without redistributing power informally among the remaining members.

This draft also recommends a governance layering that separates member authority, operating ratification, and academic standardization. The Board of Regents retains reserved powers and determines final board composition. A Federation Board of Governors, whose composition is set by the Regents, ratifies operating standards and network-level policy in the ordinary course. A separate Academic Council develops recommendations on curriculum continuity, equivalencies, and academic standards for Board of Governors ratification. The result is a model that combines equal ownership, provider-neutral technical interoperability, clear decision thresholds, and enough structure to make collaboration governable at scale.

2. Purpose, audience, and drafting assumptions

This White Paper is drafted as an invited-university packet. It is intended for formal review by universities that have already been invited into SIMON-INSTITUTE discussions, together with the governing bodies responsible for evaluating the Federation's legal, academic, technical, and strategic fit. It is not a public marketing brochure. It is a governance and operating paper designed to explain what the Federation is, how it is meant to function, and which matters remain for final Board action.

The paper synthesizes the current federation board packet, participation proposal, Goldilocks platform concept, collaboration narrative, standardized prompting materials, and governance RACI drafts into one integrated explanation. It also incorporates the current drafting assumptions confirmed for this version: ten universities are the sole owners of SIMON-INSTITUTE, Inc.; each owns 10 percent; voting is one school, one vote; Papa Bear is provider-neutral; member schools host mirrored components; supermajority means seven votes; and a separate Academic Council makes recommendations to the Board of Governors for ratification.

This document is not legal advice, and it does not attempt to settle every detail that would appear in definitive agreements. Pricing, subscription mechanics, and other transactional terms are deliberately omitted. Final charters, operating agreements, IP documents, and membership papers will control. The role of this White Paper is to provide a board-ready narrative and a shared reference point for invited universities evaluating founding participation.

3. What the Federation is - and is not

Why a federation rather than a loose consortium

SIMON-INSTITUTE is conceived as a federation because loose consortia do not solve the operational problems that arise once universities begin to share AI workflows, prompt-governed programs, evaluation logic, and hybrid compute practices across institutions. Without a common path, collaboration degrades into informal reuse: prompts move through email and chat, tool permissions drift, provenance becomes incomplete, evaluation criteria vary by campus, and no one can say with confidence which version of a program is approved for reuse.

A federation creates the discipline that a consortium usually lacks. It creates one path for proposal, review, execution, evaluation, and release; one registry for approved reusable programs; one standards baseline for schemas, provenance, observability, and tool exposure; and one governance framework for deciding what can be shared and under what controls. That structure does not eliminate local autonomy. It protects it by limiting standardization to the collaboration boundary.

What the Federation is not

The Federation is not a raw prompt-sharing club, not a blanket cross-campus compute access regime, and not a license for uncontrolled autonomy. Local Baby Bear and Mama Bear systems remain institution-contained by default. Federation release does not mean that all internal datasets, code, or models become common property. It means that specific artifacts, workflows, and approved release objects move through a controlled path into a shared catalog under explicit terms.

The Federation also does not begin at the highest possible risk tier. Initial release classes are intentionally limited to low- and medium-risk use cases such as literature synthesis, code scaffolding and test generation, experiment planning support, structured reasoning against approved corpora, and approved research copilots. Unrestricted autonomous agents, uncontrolled web-browsing agents, cross-institution raw data transfer, and high-stakes decision automation remain outside routine release unless separately approved under heightened review.

4. Ownership, voting, and reserved matters

The recommended entity structure is straightforward: SIMON-INSTITUTE, Inc. serves as the member-owned parent entity, and SIMON-INSTITUTE Federation serves as the operating entity. This permits the Federation to maintain one standards-and-registry organization while keeping equal ownership alignment among the ten universities. Because the parent is owned only by the universities, no outside equity holder distorts the governance logic of the founding cohort.

The treasury rule matters because a ten-school federation should remain a ten-school federation even when membership changes. If a university withdraws or a seat otherwise becomes vacant, the related 10 percent interest should not be automatically redistributed to the remaining members. Instead, the interest should be held as treasury by SIMON-INSTITUTE, Inc. until the Board approves a replacement institution. That replacement would then take up the treasury interest under then-current participation documents, preserving both cap-table symmetry and the invitation-only character of the federation.

This paper recommends, but does not require, a separate Federation IP entity. A dedicated IP vehicle can simplify the ownership and licensing of federation-released assets such as approved Prompt Contracts, reference implementations, evaluation suites, or curated release packages. It can also isolate risk and make contributor rights easier to document. At the same time, some Boards prefer a leaner structure in the first operating years. For that reason, the final decision on whether to activate a separate IP entity should remain with the Board.

Ownership and governance structure (recommended)

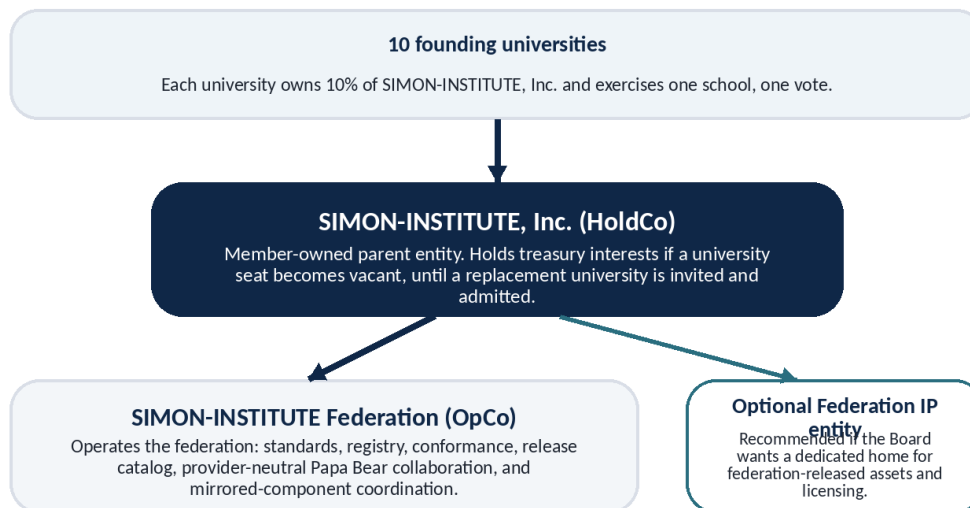


Figure 1. Recommended entity structure with equal university ownership, treasury treatment, and optional IP vehicle.

Reserved matter	Vote threshold	Reason for reserve treatment
Risk-tier expansion	7 of 10 votes	Changes the federation's risk envelope and approved release classes.
IP policy or activation of a separate IP vehicle	7 of 10 votes	Affects contributor rights, licensing, and long-term asset governance.
Membership replacement / reissuance of treasury interest	7 of 10 votes	Preserves the invitation-only design and the ten-university cap table.
Ordinary operating matters	Simple majority unless charter says otherwise	Keeps implementation practical while reserving only the most consequential matters.

5. Invitation-only membership and selection criteria

Membership is capped at ten universities and is available only by invitation. The cap is not arbitrary. Ten institutions are enough to create real interoperability demands, real governance complexity, and a truly federated research footprint, but still few enough to preserve disciplined onboarding, conformance, and oversight. The invitation-only rule is equally important. SIMON-INSTITUTE is a permissioned federation, not an open network. Admission therefore depends on institutional fit, standards discipline, and a demonstrated willingness to operate inside the federation's rules.

Geographic diversity is a founding design objective. Exact region quotas are subordinate to that principle. The aim is to build a federation whose nodes broaden sponsor relevance, research domains, and regional partnerships while reducing concentration risk. In practice, geographic diversity should be evaluated together with institutional quality and operational readiness rather than as a stand-alone quota.

Admission should proceed through a formal path: invitation, governance and compliance diligence, technical readiness review, designation of required institutional representatives, execution of definitive agreements, and conformance onboarding. That path protects existing members, protects incoming universities, and avoids the

confusion that would arise if institutions joined before their policy, identity, and mirrored-component responsibilities were fully understood.

Selection criterion	Why it matters
Institutional seriousness	Ability to sustain advanced AI and hybrid-compute teaching and research with real executive sponsorship.
Governance and compliance readiness	Capacity to operate within export-control, sponsor, IRB, cyber, and audit expectations.
Standards discipline	Willingness to adopt the five-artifact path, Prompt Contracts, conformance rules, and mirrored components.
Infrastructure readiness	Ability to host secure local systems or a federation-compatible node and support campus operations.
Geographic contribution	Participation should strengthen the federation's geographic diversity and partnership reach.
Long-term commitment	Founding membership is meant for active institutional partnership, not passive affiliation.

6. Governance architecture

This White Paper recommends a layered governance model so that member authority, operating policy, and academic standardization are not collapsed into one undifferentiated board. The Board of Regents should remain the body that holds reserved powers, determines final board composition, and acts on the most consequential matters affecting the Federation's ownership logic, risk posture, and long-term institutional character. The Board of Regents is therefore the proper place for the seven-vote supermajority rule on risk-tier expansion, IP policy, and membership replacement.

Beneath that reserved-powers layer, the Federation should operate through a Board of Governors whose composition is set by the Regents. The Board of Governors would ratify ordinary federation operating policy, academic continuity policy, and standards changes that do not alter a reserved matter. This structure creates a practical operating forum without requiring every ordinary implementation question to be elevated to the member-governance layer.

Academic standardization should sit with a separate Academic Council. The Academic Council would develop recommendations on core curriculum continuity, course equivalencies, academic recognition thresholds, and network-level educational standards. Those recommendations would then move to the Board of Governors for ratification. This preserves academic seriousness while avoiding the false choice between total centralization and complete fragmentation. Local schools keep authority over degree integration, local curriculum routing, and campus academic rules; the Academic Council creates continuity at the federation boundary.

The Board may also benefit from specialist advisory seats or committee-based advisors as it refines the final structure. The current governance materials support roles such as Chief Architect, Network Specialist, Ethics Advisor, and strategic planning leadership. For this federation model, two additional specialist roles are especially useful: a Public and Private Equity Advisor to help the Board think clearly about capital structure, treasury treatment, and long-term institutional finance; and a University Selection and Steering Advisor to support invitation strategy, diligence, and replacement-member evaluation. These advisors can be voting or non-voting depending on the final charter adopted by the Regents.

Body / function	Primary role	Decision note
Board of Regents	Reserved powers, board composition, membership integrity, risk-tier expansion, IP policy, and other member-level matters.	One school, one vote; seven-vote supermajority on specified reserved matters.
Board of Governors	Ratifies ordinary federation operating policy, standards changes in the ordinary course, and academic continuity measures.	Composition determined by the Board of Regents.
Academic Council	Develops recommendations on curriculum continuity, equivalencies, network standards, and recognition thresholds.	Makes recommendations to the Board of Governors for ratification.
Standards / Protocol function	Maintains schemas, validation, conformance testing, and synchronization logic for mirrored federation services.	Delegated operating authority under board-approved policy.
Campus operations teams	Operate local infrastructure, enforce security posture, implement shareability controls, and support local users.	Local authority remains with each member university.

RECOMMENDED COMMITTEE BASELINE

Technology and Architecture oversees schemas, interoperability, mirrored-service architecture, and release mechanics.

Ethics and Human Impact oversees prohibited use classes, high-risk escalations, and policy alignment.

Security and Risk oversees trust, access, telemetry, audit controls, incident patterns, and operational resilience.

Finance and Audit plus Membership and Nominations support treasury treatment, replacement-member review, and long-range federation stewardship.

7. Standards, registry, and mirrored components

The Federation does not need to invent a complete interoperability stack from scratch. The safer and faster approach is to adopt a small set of mature standards and add one SIMON-specific layer where it is genuinely needed. The governance umbrella is NIST AI RMF. Identity and institutional trust follow a higher-education federation model. OpenAPI and JSON Schema define interfaces and validation rules. MCP or an approved equivalent governs model-to-tool exposure. W3C PROV provides provenance. OpenTelemetry provides traces, logs, and metrics. CycloneDX or an approved equivalent provides release inventory and supply-chain visibility. The SIMON-specific layer is the Prompt Contract.

A Prompt Contract is not a casual prompt. It is a versioned, machine-readable, reviewable federation object that defines the objective of an AI workflow, allowed models, permitted and prohibited tools, required context, input and output schemas, evaluation requirements, approval owners, and review dates. The policy rule is simple: schools exchange governed Prompt Contracts, not ungoverned reusable prompts. That single principle does more than any other design choice to keep the federation auditable and governable.

The Federation Registry is the system of record for Prompt Contracts, Run Requests, Evaluation Reports, Release Records, provenance links, version histories, and approvals. Because member schools are expected to host mirrored components, the registry should be designed as a governed federation service with synchronized local components rather than as a fragile single-node application. Mirrored components improve resilience, preserve local continuity during outages, support audit redundancy, and reinforce the idea that this is a shared infrastructure responsibility rather than a remote platform imposed on campuses.

Mirroring should not be confused with uncontrolled replication of everything. Governance remains centralized even if technical components are mirrored. Canonical schemas, release status, and approval records remain subject to federation rules. Local mirrors should therefore be designed to synchronize approved metadata, validation logic, and authorized artifact states while still respecting classification tags, access controls, and project-level shareability settings.

Five-artifact path	Purpose
Research Brief	Human-readable statement of objective, scope, participating institutions, risk tier, and intended outcomes.
Prompt Contract	Machine-readable governance object defining models, tools, context, schemas, tests, owners, and review dates.
Run Request	Structured execution request tied to a specific contract version, model class, tool permissions, and input package.
Evaluation Report	Evidence of technical validity, policy compliance, benchmark performance, and other required checks.
Release Record	Formal artifact that promotes an approved program into the federation catalog.

Mirrored component	Why it is mirrored at each school
Registry mirror	Resilience, local continuity, and shared stewardship of the federation system of record.
Validation and schema services	Consistent artifact intake and contract validation at each school without creating ad hoc local variants.
Synchronization logs and status mirrors	Transparent reconciliation of approved states, release status, and conformance updates.
Access-controlled artifact metadata replicas	Local discoverability of what is approved for federation use without exposing restricted content.

8. Goldilocks architecture and the collaboration boundary

The Goldilocks model expresses the federation's technical and operational philosophy. Baby Bear is the on-campus AI supercluster. Mama Bear is the on-site quantum capability. Papa Bear is the provider-neutral cloud collaboration substrate. The naming is memorable, but the underlying logic is serious: each layer exists because different kinds of work need different governance boundaries and different execution environments.

Baby Bear and Mama Bear remain local by default. They support serious research, controlled teaching access, calibration-aware experimentation, simulation, training augmentation, and hybrid workflows without requiring a campus to surrender direct control of sensitive systems. Papa Bear exists so that approved multi-university projects can benchmark, share approved artifacts, and collaborate across sites without turning the entire federation into a flat network. In effect, local autonomy is preserved at the compute layer while interoperability is enforced at the program and artifact layer.

This is why the federation speaks in terms of manifests, contracts, evaluations, release records, and approved workspaces rather than raw access. Artifacts, approved outputs, and reproducibility packages move across the network under policy. Local systems do not become open endpoints for every other member school. That design

supports export control, sponsor restrictions, IRB considerations, and sensitive-IP work while still enabling multi-campus teams to attack research problems that exceed the practical scope of any one institution.

Goldilocks network and collaboration boundary

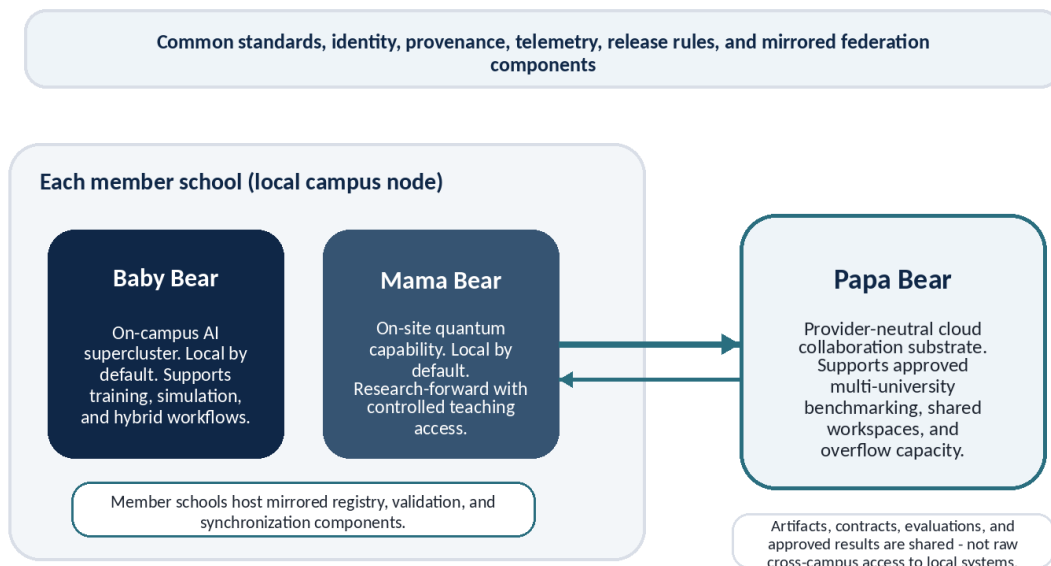


Figure 2. Goldilocks model: local Baby Bear and Mama Bear systems, provider-neutral Papa Bear collaboration, and mirrored federation components.

9. Security, IP, and compliance posture

The Federation's default security posture is 'secure locally, collaborative in cloud.' Every shared artifact should carry classification and release status, and every approved run should emit provenance and telemetry sufficient for review, incident response, and audit. This is not optional overhead. It is the price of being able to say, with confidence, which institution authored a workflow, which tools were exposed, what evaluations were run, and whether a release was properly approved.

IP policy should reflect the same discipline. Background IP remains local by default. Federation release is an affirmative act. A university or multi-university team decides to publish a workflow, contract, or release package into the federation catalog under board-approved licensing terms. Co-authored releases should identify contributing institutions clearly. If the Board chooses to activate a separate Federation IP entity, that vehicle can hold federation-released assets and license them under common terms while leaving unreleased local IP untouched.

The most important policy distinction is between collaboration and exposure. A university can collaborate deeply without exposing all of its underlying infrastructure or all of its internal research assets. The federation's technical and governance design is therefore built to maximize approved collaboration while minimizing unnecessary exposure.

RECOMMENDED IP PRINCIPLE

Background IP remains local by default.

Federation release is an affirmative act governed by release records, attribution, and board-approved licensing terms.

A separate IP vehicle is recommended if the Board wants a dedicated home for federation-released assets, but the final decision remains with the Board.

10. Implementation roadmap and success measures

The current board packet already provides a useful four-phase implementation pattern for the full ten-school federation. In the first 30 days, the Federation constitutes the standards working group, confirms baseline schemas, designates school-level representatives, and establishes registry governance. By day 60, it launches the registry, validation procedures, and submission training. By day 90, all ten schools are onboarded to identity, registry, and approval workflows and can begin governed low- and medium-risk submissions. By day 120, the Federation publishes its first approved program catalog and reports implementation status to the Board.

Success should be measured in both governance and operating terms: number of schools onboarded; conformance pass rates; Prompt Contracts submitted, reviewed, and released; evaluation completion rates; reproducibility performance; incident metrics; and uptime during scheduled teaching and collaboration windows. A founding federation should measure not only technical throughput, but also whether its governance actually remains usable under real operating load.

Phase	Minimum execution path
0-30 days	Constitute working group, confirm baseline schemas, designate school representatives, establish registry governance.
31-60 days	Launch registry and validation procedures; train schools on artifact submission and review workflows.
61-90 days	Onboard all ten schools to identity, registry, mirrored-component sync, and approval processes; begin governed submissions.
91-120 days	Publish first approved catalog; present implementation report covering onboarding, releases, exceptions, and risks.

SUGGESTED FOUNDING METRICS

Schools onboarded and conformance-certified.

Prompt Contracts submitted, reviewed, evaluated, and released.

Reproducibility performance, audit readiness, and incident-response maturity.

Availability during scheduled teaching and approved collaboration windows.

11. Conclusion

SIMON-INSTITUTE Federation is best understood as a disciplined collaboration architecture for ten invited universities, not as a loose alliance and not as a centralized takeover of campus operations. Its strength lies in a clear division of responsibilities: equal member ownership at the parent level, a governed operating federation at the collaboration boundary, local control of sensitive systems, and a standards path that turns reusable AI and hybrid-compute workflows into auditable federation programs.

If adopted with the design choices reflected in this draft - equal ownership, one school one vote, seven-vote supermajority on reserved matters, mirrored federation components, a provider-neutral Papa Bear, and a separate Academic Council recommending to the Board of Governors - the Federation has the ingredients to

become a durable model for multi-university AI and quantum collaboration. It is structured enough to govern, flexible enough to scale, and serious enough to merit invited-university consideration.

Appendix A. Current governance assumptions reflected in this draft

The table below records the working assumptions supplied for this invited-university version so reviewers can see exactly which design choices are already being reflected in the narrative.

Confirmed assumption	Current working position
Audience	Invited-university packet rather than a public-facing paper.
Ownership	Ten universities are the only owners of SIMON-INSTITUTE, Inc.
Equity split	Each university owns 10% of SIMON-INSTITUTE, Inc.
Voting	One school, one vote.
Supermajority	Seven votes for risk-tier expansion, IP policy, and membership replacement.
Vacancy treatment	Vacant university interest is held as treasury until a replacement is invited.
Papa Bear	Provider-neutral cloud collaboration substrate.
Mirrored components	Member schools are expected to host mirrored federation components.
Academic governance	Separate Academic Council recommends to Board of Governors for ratification.

Prepared in a governance-pack format for invited-university review. Definitive legal documents, charters, and board resolutions will control final implementation.