



NSF's Regional Innovation Engines Program

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Governance Models and Leadership Structures

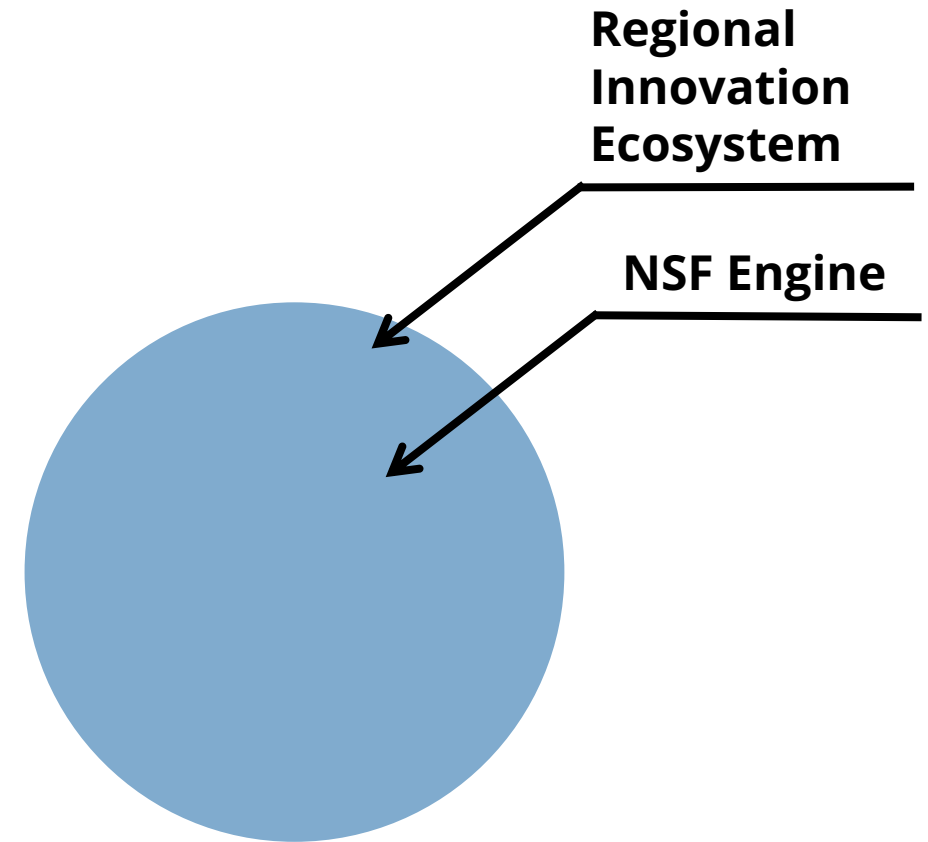
- Organizational Structure
- Governance
- CEO
- Leadership Team

Key Clarifying Points

- Region of Service – Deep Involvement with Region
 - Built with the community, put geography front and center
- Governance – Flexible and Nimble
 - Culture of innovation
- CEO - Required
 - Who can serve and what does that entail?
- Leadership Team and Boards
 - Structure and roles

What makes an Engine “regional?”

- A **regionally**-centered multi-sector coalition of partners and stakeholders across industry, academia, government, and non-profit organizations working together in a topic area of **regional relevance**, as well as national and societal significance, and led by a full-time CEO to:
 - Drive R&D innovation to achieve **regional** economic growth
 - Build an inclusive innovation ecosystem that will thrive in the **Region** of Service well beyond the award period



Embrace and articulate what makes your Engine inextricable from your defined region!



Engine Structures & Governance



Engine Structure:

- The BAA does not prescribe any set governance structure but does require:
 - Full-time CEO employed by lead institution
 - Robust Governance and Advisory Boards

Governance matters to NSF. We want Engines to build with intentionality, creativity, and accountability.

Flexible Engine structure and functions with accountability to NSF

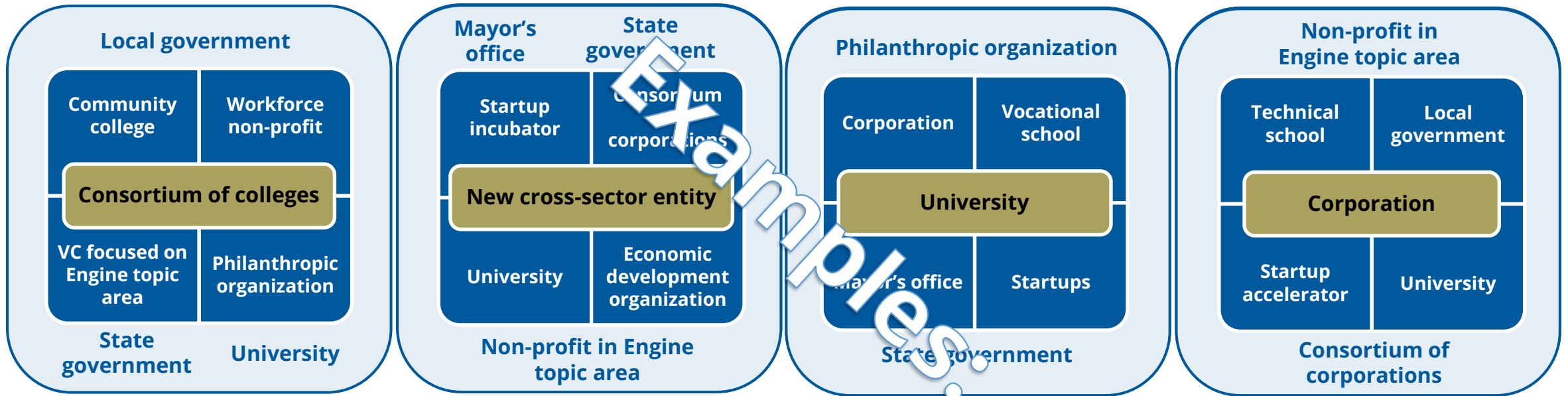
Engines are designed to have the following:

- **Engine structure:** Lead organization can be from industry, academia, or non-profit sectors. The structure of the Engine partnerships and management are **to be defined by the proposing team** based on what will allow the Engine to meet its objectives.
- **Leadership:** Engines will be led by a **Chief Executive Officer** (Project Director) and cross-sector **leadership team from the range of sectors** participating as partners in the Engine. Consideration of **DEIA must start from the leadership** composition and priorities. The Engine will be **accountable to a governance and advisory boards, regional stakeholders, and NSF.**
- **Accountability through evaluation:** Engines will develop and carry out **Evaluation Plans** and are encouraged to consult external evaluators. All awardees are expected to participate in any NSF funded, independent evaluation of the NSF Engines portfolio of awards. **NSF has the ability to terminate Engine awards.**

Engine Structure:

Flexibility in determining the relevant partnership sectors and structure for working together

Non-exhaustive examples of potential Engine structures, to get teams started in brainstorming:



Note: Besides the lead organization, Engines can have numerous partner organizations.

- Teams are encouraged to start developing IP and other partnership agreements during the proposal stage

Management Plan: Culture of Innovation (from BAA)

Each Engine is expected to embody a culture of innovation throughout its management structure, processes, partners, and stakeholders, and in carrying out its core function. Each Engine should actively promote trust, a diversity of perspectives, risk-taking, and knowledge sharing. This operational model necessarily implies that the Engine should be nimble and the direction of research and transition to practice will be subject to real-time course correction as the Engine evolves. Engines are expected to produce meaningful outcomes early and throughout the award duration. ...Each Engine should encourage interactions within its ecosystem at various levels (e.g., senior leadership, management, technicians, researchers, practitioners, entrepreneurs) and among stakeholders (e.g., through joint appointments between industry and IHEs, entrepreneurs-in-residence, and other creative talent placement mechanisms).

Each Engine partner is expected to consider whether its institutional processes will allow it to embody a culture of innovation that leads to societal and economic benefit. For instance, IHE partners are expected to address, during the award period, the possibility that traditional methods for evaluating tenure and promotion may not sufficiently value the type of work to be conducted in and outputs from the Engine; IHE partners should define institutional policies to reward faculty for participation in the Engine's activities that may not lead to traditional academic outcomes such as research publications.

Concurrently, for-profit organizations... should take steps to invest both monetary and non-monetary resources in the region of service that may not meet traditional return-on-investment (ROI) expectations. For example, this may include developing a framework that would allow industry partners and other Engine stakeholders to collectively support the pre-competitive R&D space, investing in the relevant community-growth initiatives including workforce development and education efforts to support the Engine's topic area and region of service, and developing products, services, and other outputs that will benefit society.

Management Plan: The BAA is not prescriptive

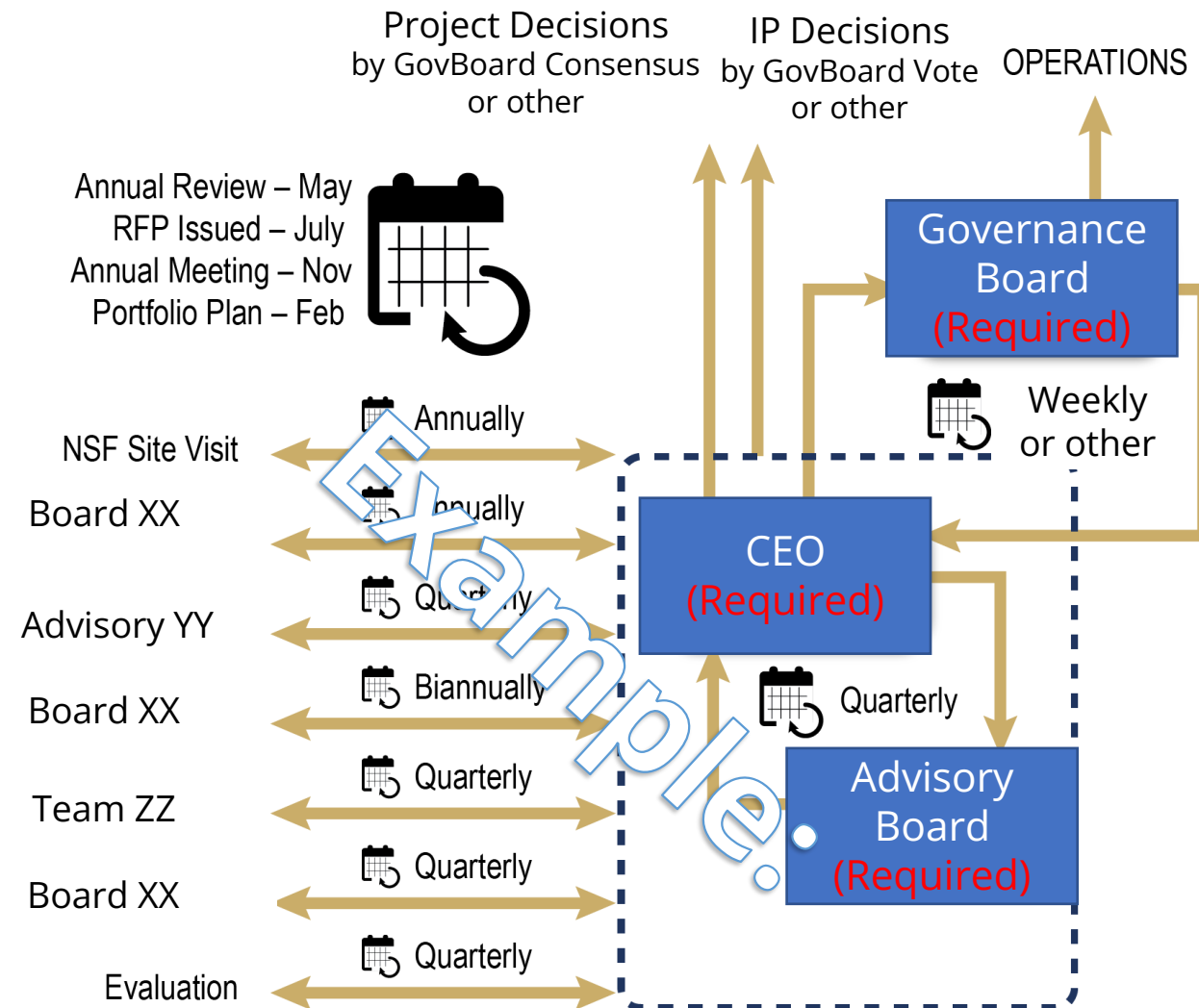
Food for Thought: graphics may help reviewers understand your governance model, org. chart, and stakeholder map

Management Structure:

- Freedom for creativity
- Governance board's active involvement
- Defined roles of advisory boards/entities

Explain Engine's processes for:

- Decision making
- Team communication/collaboration
- Receiving community and advisory board feedback
- Adding new partners/outside capital



Example: Teams should consider developing their own plan/graphics, with timings, roles, etc.

Considerations: Management Plan

Will it be clear to reviewers that the Management Plan:

- Is nimble?
- Has the capacity and structure to drive regional economic development?
- Has an integrative model that concurrently leads economic development, research, translation, and workforce development strategies?
- Can promote teaming and trust within the ecosystem?
- Can be responsive to NSF/Other Funders reporting requirements?
- Is attuned to risk management?

CEO Role

CEO: Required

BAA: Project Director/Chief Executive Officer (CEO): Each Engine must be led by a visionary full-time chief executive, who is the senior official in charge of managing the Engine and is responsible for its overall success.

The Engine CEO is responsible for leading the development and execution of the long-term strategic plans of the Engine, with the ultimate goal of building a sustainable regional innovation ecosystem that provides value to all stakeholders. The Engine CEO must be employed by the lead organization.

Evaluation Criteria

Leadership Team: *Does the proposal provide a reasonable plan for forming a visionary and effective leadership team, including the recruitment of a full-time CEO?*

Does the proposal describe a well-informed process by which all necessary disciplines, skills, perspectives, and capabilities will be brought together to form an interdependent, multidisciplinary, and diverse leadership team that can work and communicate effectively?

Leadership

Leadership Team and Boards

Leadership Team

- “Deeply collaborative and effective leadership team”
- Strong regional knowledge, discernable leadership experience
- Effectively integrate team members with different areas of expertise, vocabulary, perspectives, and priorities regarding the problems to be addressed. DEIA starts from the top.

Leadership for core functions

- Use-inspired research and development
- Translation of innovations to practice
- Workforce development to grow and sustain regional innovation, including education initiatives
- Partnership development and stakeholder engagement
- Diversity, equity, inclusion, and accessibility
- Communications and outreach
- Evaluation and assessment

Governance Boards

Required Boards

- Governance Board: Composed of the lead Engine organization and a representative set of the Engine's partners, this board provides, at a minimum, administrative oversight of the Engine's activities and is responsible for the Engine's performance. The CEO is a member of the Governance Board.
- Advisory Board: Composed of individuals external to the Engine, this board provides, at a minimum, recommendations to the Governance Board as needed.

More information

- Website with FAQs: beta.nsf.gov/engines
- BAA: https://bit.ly/NSFEnginesBAA_2205_01
- Email: engines@nsf.gov
- Office hours: **link coming soon!**

Characteristics of an NSF Engine

R&D innovation to achieve regional economic growth

- Robust regional partnerships
- Use-inspired R&D
- Translating innovation to practice
- Comprehensive workforce development

Building an inclusive innovation ecosystem that will thrive for decades to come

- Financial sustainability
- Culture of innovation
- Diversity, equity, Inclusion, and accessibility (DEIA) at all levels
- Community wealth building

Flexible Engine structure and activities with accountability to NSF

- Engine structure
- Leadership
- Accountability through evaluation

Considerations: Engine Structure

Will it be clear to reviewers that the Engine Structure:

- Embraces the defined region of service?
- Has clear strength in regional economic development?
- Involves appropriate stakeholders?
- Can engage funders beyond NSF?
- Is attuned to regional community, regulatory, ethical, and legal concerns?
- Embodies inclusion and outcomes-oriented workforce development?



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**To learn more visit:
beta.nsf.gov/engines**