Future Cyberinfrastructure Consortium

Next Steps
March 14, 2017

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RESEARCH \ ENGAGEMENT \ INNOVATION

THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Agenda

- Background FCIC
- Governance
- Consortium Model
- Member recruiting and Next Steps
- Questions

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Thirty people representing seventeen Orgs met to discuss Cyberinfrastructure future

Fourteen organizations committed to start FCIC

- "Future Cyberinfrastructure Consortium (FCIC)…will design, deploy, operate, sustain, and evolve an advanced distributed cyberinfrastructure to support education and experimental research addressing grand challenges of society"

- "…FCIC will create a cyberinfrastructure environment to support multiple heterogeneous research testbeds for education and research communities; it will be governed by, and advocate for, its communities."

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FCIC expects to be relevant to many communities

- "by researchers, for researchers…"

- ….but valuable to many communities

  - Domain Sciences
  - Existing Research Centers and Labs
  - Research Divisions of Government Agencies
  - Independent Non-Profit Research Centers
  - University Research Offices
  - University IT Organizations and CIOs
  - Established Commercial Companies
  - Startup Companies
 - International Research Partners
  - Educators

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Initial membership categories focused on benefits

Level	Benefits	Obligations
Member	Accelerated access to testbeds and projects Discounted access to training and events	Participate in events and consortium projects Annual membership fee prorated between ($0 and $1,000)
Supporting Member	Member benefits plus.. Committee membership Expert consultation on projects	Member obligation plus Host testbed or events as needed Annual membership prorated between ($1,000 and $10,000 or equiv)
Sustaining Member	Above benefits plus Governing Council member	Above obligations plus Leadership responsibilities Annual membership between ($10,000 and $100,000 or equiv)

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Membership categories may vary by community

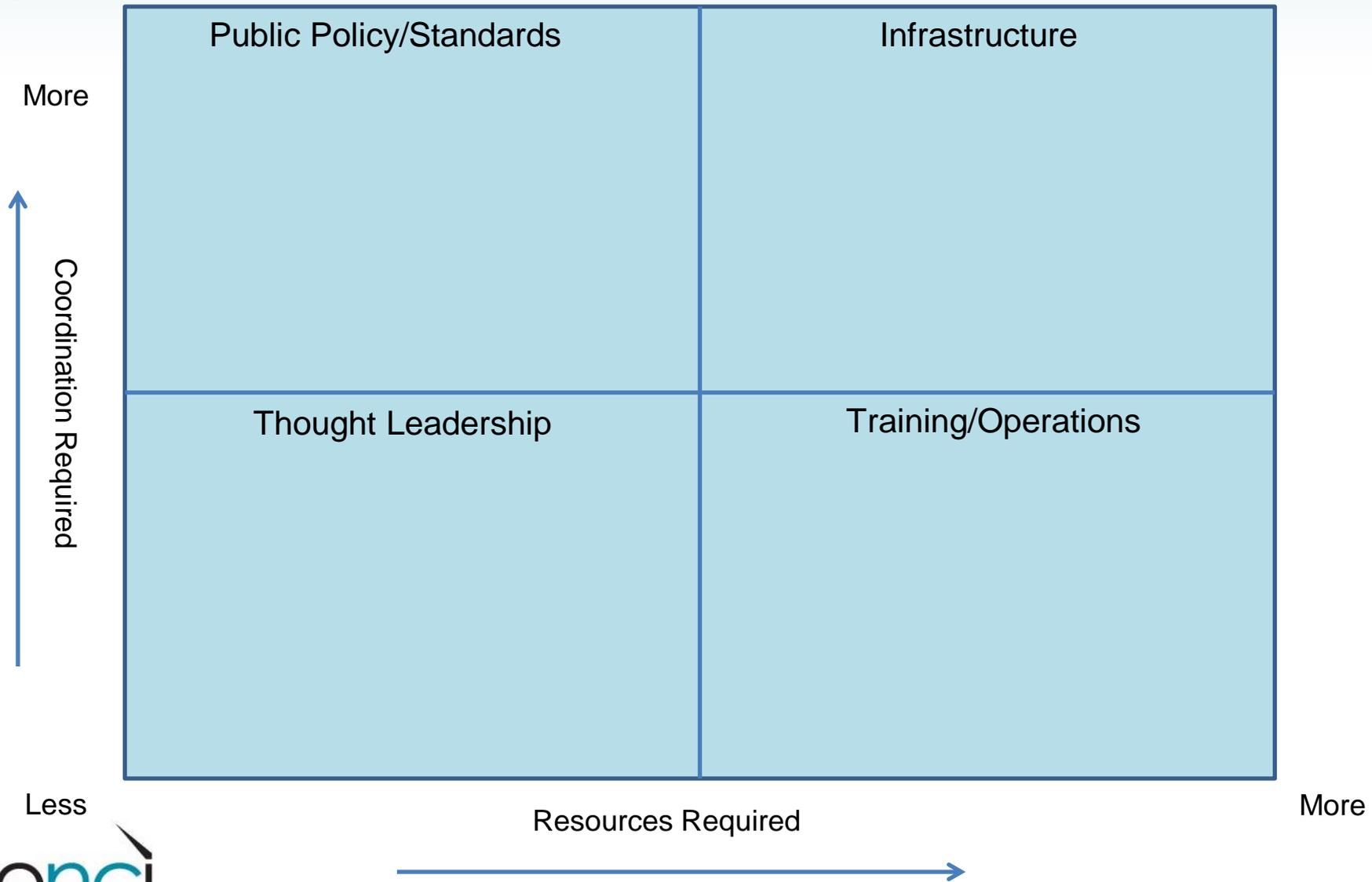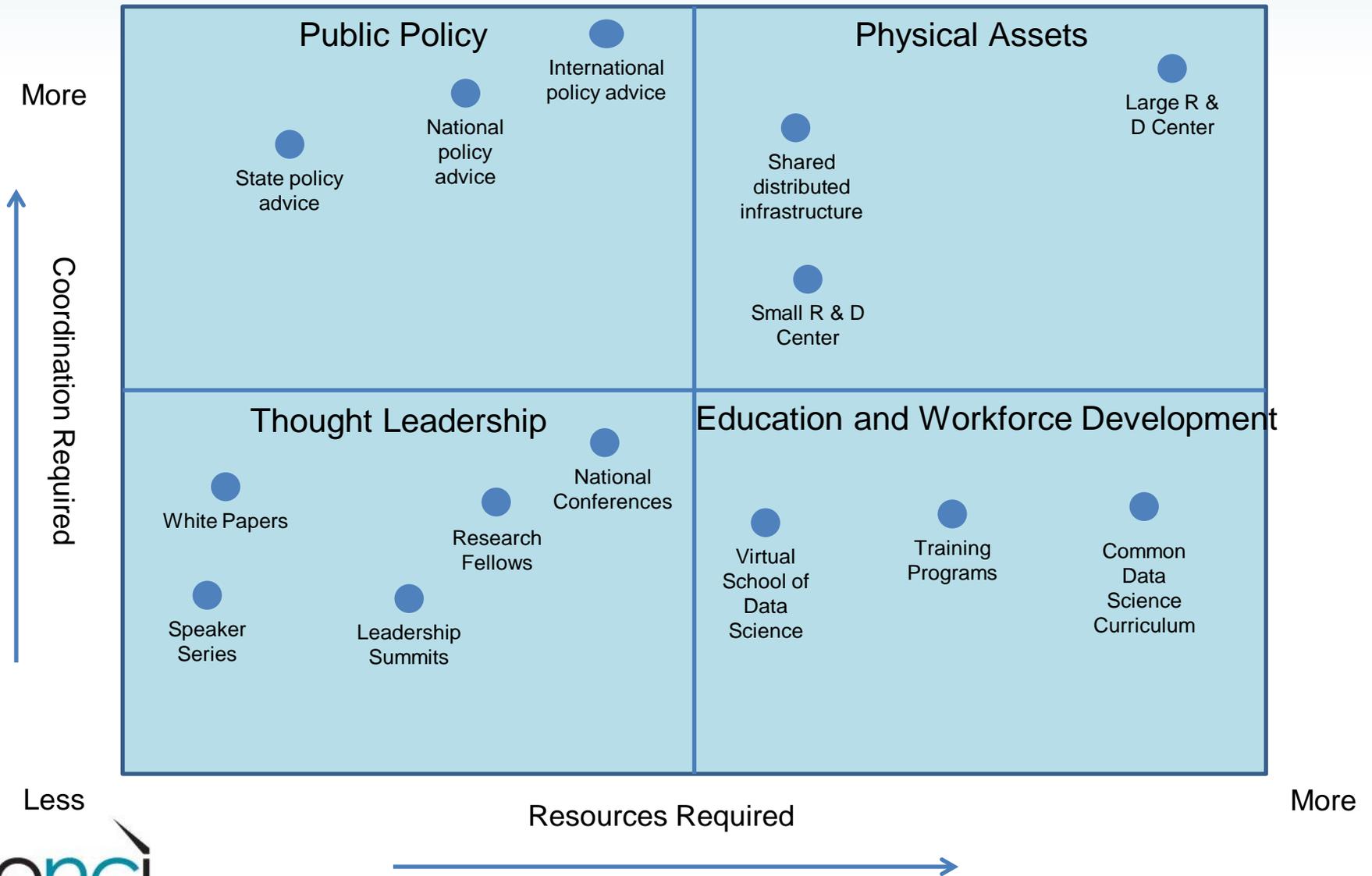|	What they want?	What they bring
Domain Science Researchers	Access to advanced infrastructure to facilitate their domain research - Capability, sustainability, reliability	Use cases, testimonials; increased awareness
Educators	Access to advanced infrastructure to facilitate their domain research - Capability, sustainability, reliability	Use cases; testimonials; increased awareness; pipeline to future users
Operators (CIOs, Data Centers, etc)	Federation level infrastructure; specialized overlays	Production environment, equipment and operations support
Networking researchers, developers and architects	Testbeds to advance cyberinfrastructure research including software and hardware design	CI R&D
Industry	Deeper academic ties and R&D support	Problem identification; research funding
Funding agencies	Sustainable research with impact	Funding; prioritization

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Broad Governance vision…..
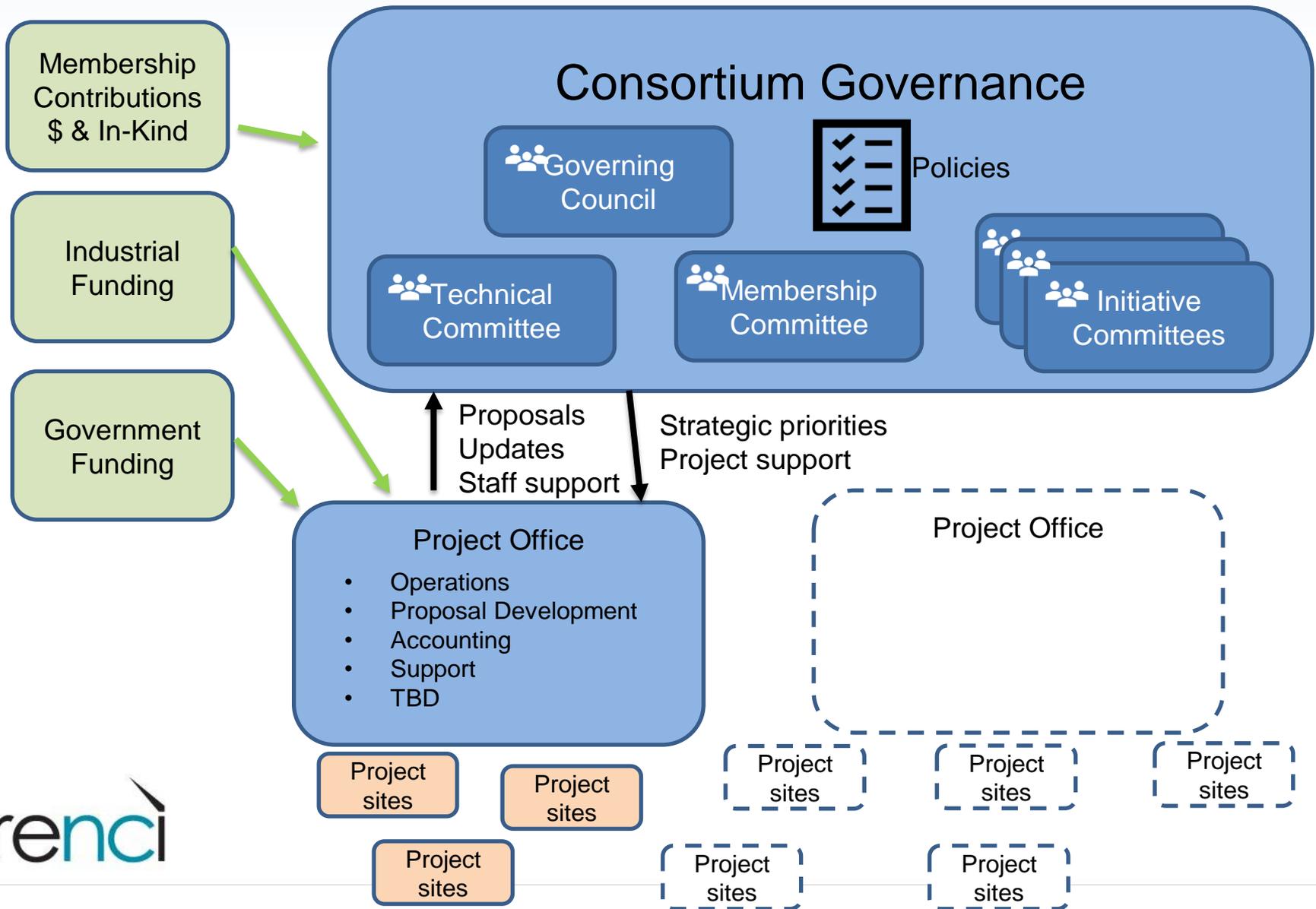
..... has open issues

- Tiered membership model
- Value to members
- Sustainability
- Consortium committee structure and membership
- Project office(s) relationship

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Community informs vision and priorities; project office executes

Public Policy/Standards

Infrastructure

Thought Leadership

Training/Operations

More

Coordination Required

Less

More

Resources Required

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Data Science – Use Case

Mission, Structure and Operations

Lessons Learned

| Mission	Structure	Operations
• Be specific; vague common interests not enough • Inclusion of multiple stakeholders • Periodic reviews and biennial strategic planning process • Identify partner organizations • Understand role within larger context (collaborators, competitors, etc.)	• Solid governance documents should be priority • Rigid structure can backfire • Committees and working groups foster engagement • Active steering committee and rotating leadership helps momentum • Tiered membership	• Full time staff necessary • Project management tools necessary • Monthly meetings • Diversified funding • Always recruiting • Constant contact

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Consortium Five-Phase Process

| Ideation | Formation | Implementation | Growth | Maturity |
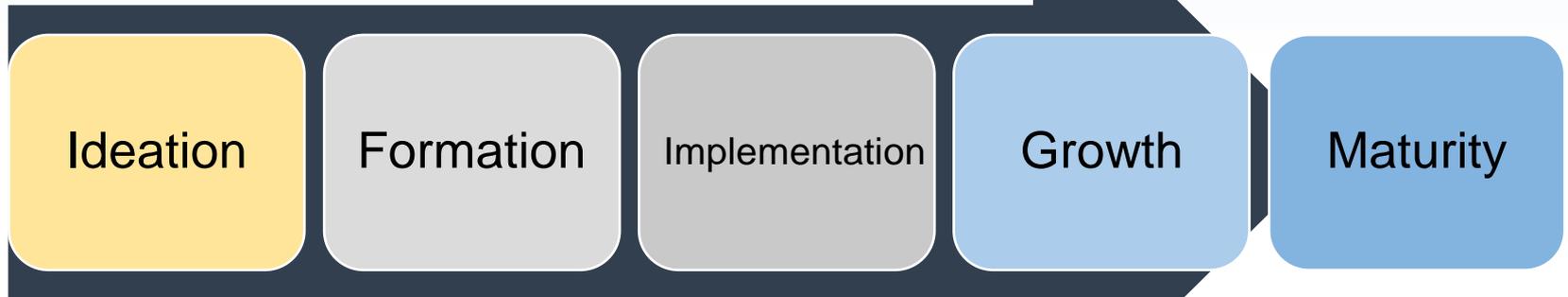
Phase 1	**Ideation**: articulating the idea and the vision
Phase 2	**Formation**: getting early members; establishing an actual group of stakeholders
Phase 3	**Implementation**: establishing bylaws, some initial programs, working groups; beginning to show value and build momentum; programs mostly <u>founder-driven</u>.
Phase 4	**Growth:** developing new programs and building on existing ones as determined by membership; organization becomes <u>member-driven</u> and founders give up some control.
Phase 5	**Maturity**: consortium is now a sustainable, member-driven organization, perhaps with professional administrators/managers. New org structure?

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Entering Phase 2 – Formulation

- Proposal submitted for 4 focus groups with different constituencies:
  1. Industry,
  2. Government Agencies/Labs,
  3. Academic Researchers, and
  4. Academic IT professionals

- Focus groups will explore interest, objectives and needs of constituencies

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Workshop #2 will follow focus groups

- ## Formation topics
    - –Review and gain approval of founding documents
    - –Hear from PPO and TIPOFF candidates; other communities
    - –Review structure and near term objectives for FCIC
    - –Discuss the organizational and structural arrangements for FCIC that allow for flexibility but also create opportunities for collaboration across constituent groups.
    - –Explore sustainment models

- ## Cyberinfrastructure topics
    - –How should the highest priority research questions be identified and approached.
    - –What educational programs can be made available
    - –What are the applications for current research efforts.

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Founding documents being drafted

- Membership agreement
- By – Laws
- Benchmarks
  - National Consortium for Data Science
  - Planet Labs
  - IRODS Consortium
  - Big Data Hubs

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Planning committee listed in proposal

- Mark Berman   GPO
- Larry Landweber   U Wisconsin/GPO
- KC Wang   Clemson
- Jay Aikat   RENCI
- Ilya Baldwin   RENCI
- Steve Wolff   Internet2
- Dave Lambert   Internet2

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Questions

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