EAB

Fine-Tuning Center and Institute Management

Practices to Increase Efficiency and Enhance Competitiveness

University Research Forum

From EAB's Archives into the Present Day

What Our Members Said in 2008—and How Far We've Come

2008 Centers and Institutes Research

"'Big bets' in multi-disciplinary research are a must, but a university's primary tool for executing this—centers and institutes (CIs)[1]—isn't disciplined enough to take up the mantle."

"Even with senior buy-in on the philosophy of multidisciplinary research, universities struggle to support and grow CIs—they try to use existing support structures that just don't measure up."

"Many universities will have to use their own funds to subsidize research operations for nearly all their CIs during the recession—at these levels, it's an unsustainable long-term strategy."

2020 Centers and Institutes Research

Significant Progress

Senior leaders embrace multidisciplinary research goals, "winning" bets often help subsidize losing ones

Progress, but Still Barriers

Some services scale up to support CIs, but most struggle with the fast-paced nature and ever-changing requirements

Still Bad, Getting Worse

Institutional funding continues to grow, provides little incentive for CIs to self-sustain

1) Centers and institutes: "CIs" will be used throughout this presentation

Source: EAB interviews and analysis.

2020: Twelve Years of Inconsistent Progress

Which Challenges Persisted and Evolved, and How They Present Today

Structures, Outcomes Misalignment Prolong Portfolio Imbalance

- **Chronic Disorganization**
  Most CIs still scattered haphazardly across universities
- **Adopting RCM[1] Budget Models**
  RCM complicates enforcing CI launch criteria, funding, reporting lines
- **Increasing Federal Competition**
  Rigid launch structures hinder research teams from gaining legitimacy

Unscaled Support Services Hinder Competitiveness

- **Lacking Administrative Differentiation**
  Most CIs vie for administrative support through the same service process
- **Scattering Support Services**
  Localized administrative services do not address CI needs sufficiently
- **Intensifying Award Expectations**
  CI-level federal awards require larger proposals, more reporting, definitive ROI

Improper Review Weighting Adds Work Without Benefit

- **Ballooning Internal Research Spending**
  Institutional spending outpaces other funding sources
- **Forcing Closure Without Alternatives**
  Evaluation criteria prioritize "make or break" decisions over CI progression (or demotion)
- **Layering Reporting Without Support**
  Annual reports fail to add value without time to review, discuss, plan with CI director

1) Responsibility Center Management: combination of policies and practices designed to overcome the separation of authority and financial responsibility within an organization.

Source: University of Alabama Birmingham, *Responsibility Center Management FAQs*; EAB interviews and analysis.

A Structural Chicken and Egg Problem

You Need CIs to Get Funding, but You Need Funding to Sustain CIs

Federal funding expectations…

> "Now, agencies don't want to seed your idea for a center, they want to invest in your already-successful center. If you're applying for a center grant, the expectation is that you're already operating like one: you already have your scope defined, you have some of your equipment and facilities in place, and you have some prior funding secured. It's a chicken/egg problem."
>
> *AVPR for Research Development, Public R1 University*

…don't match university structures.

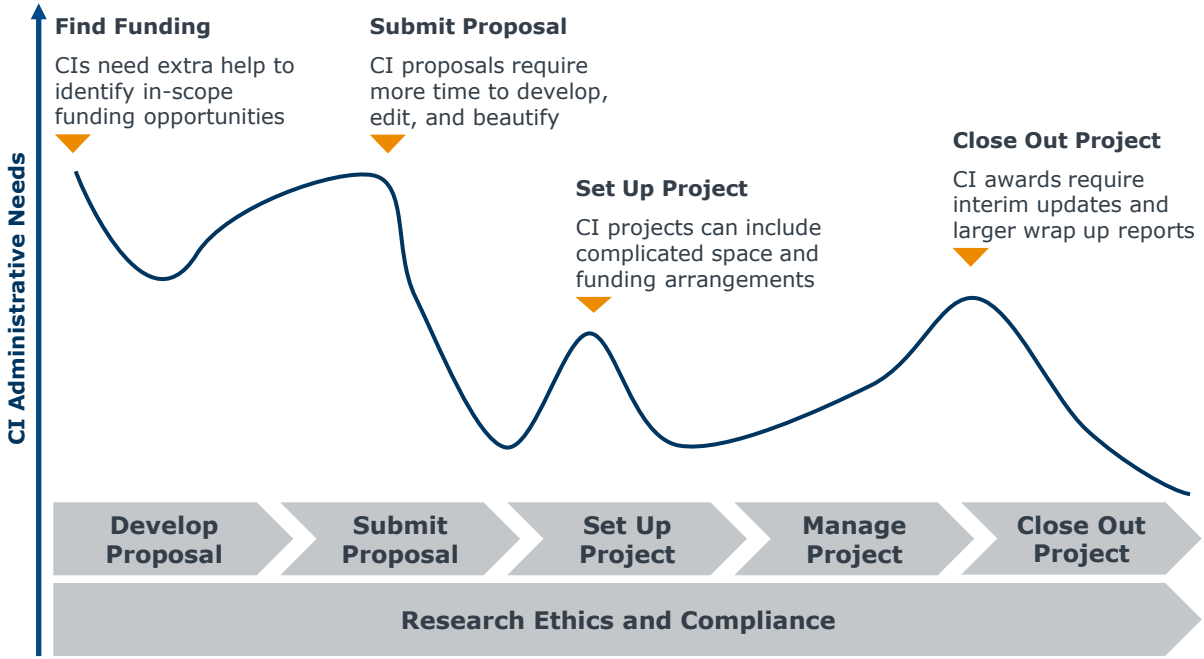
- CIs tap the same central and college-level funding sources, using seed funds **more as a crutch** than a springboard to external funding
- Fledgling interdisciplinary research teams **struggle to establish themselves** without internal recognition or external funding
- Critical interdisciplinary equipment and facilities are **only available** to those with existing funding
- Central resources **spread near-equally across various research entities** to seed many small projects

Source: EAB interviews and analysis.

Overcoming the Linear Support Fallacy

One-Size-Fits-All CI Support Fails to Account for Innovation, Diversity

The Ups and Downs of a CI's Experience Through the Grant Process

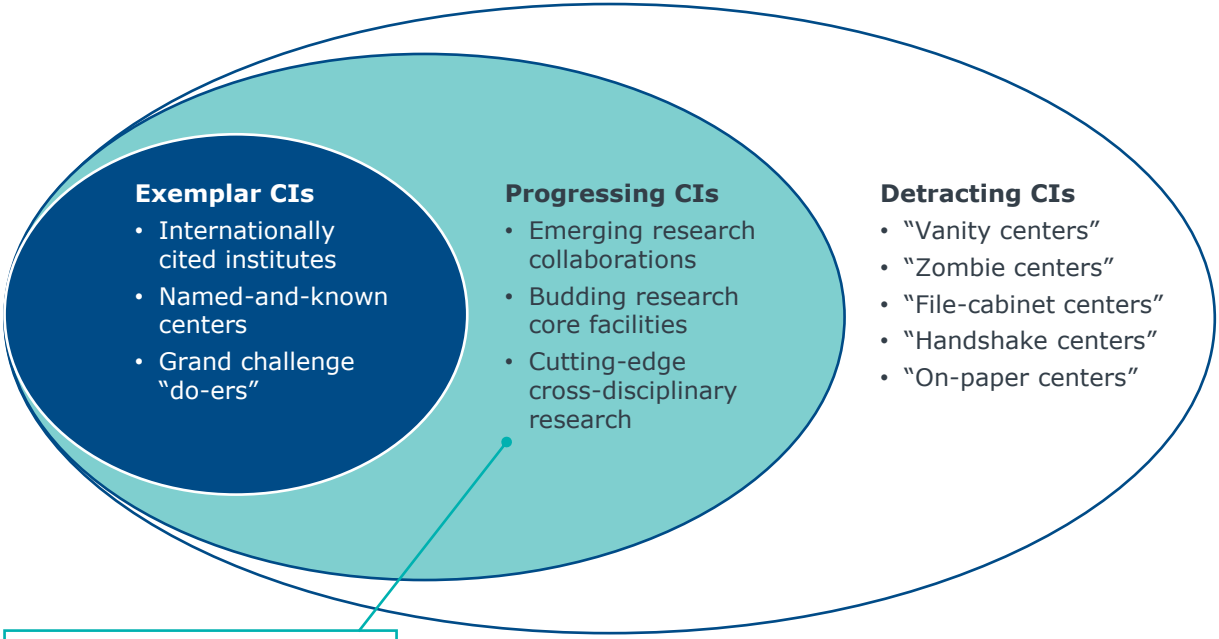


Source: Federal Demonstration Partnership's (FDP) 2018 Faculty Workload Survey; EAB interviews and analysis.

March of the Zombie Centers

Without Strong Review Standards, CI Value Becomes Diluted

CI Portfolio Performance Levels



Review policies should be strict, but also protect and promote the progressing CIs

Source: EAB interviews and analysis.

Updating the Recipe for Success

Core Problems

Structures, Outcomes Misalignment Prolong Portfolio Imbalance

Missing Ingredients

- Better differentiation between VPR, deans
- Structured non-CI elevation opportunities

Unscaled Support Services Hinder Competitiveness

Missing Ingredients

- Specialization in CI sponsored programs
- Strategic support for CI vision, strategy

Improper Review Weighting Adds Work Without Benefit

Missing Ingredients

- Stronger annual reporting requirements
- More alternatives to "open or closed"

Fully Baked Solutions

Strategic Multidisciplinary Engagements

Multidisciplinary Research Support Structures

Practice 3: Distributed Review Frameworks

Source: EAB interviews and analysis.

Strategic Multidisciplinary Engagements

- Formalized Naming Conventions
- Guided Team Formation

PRACTICE

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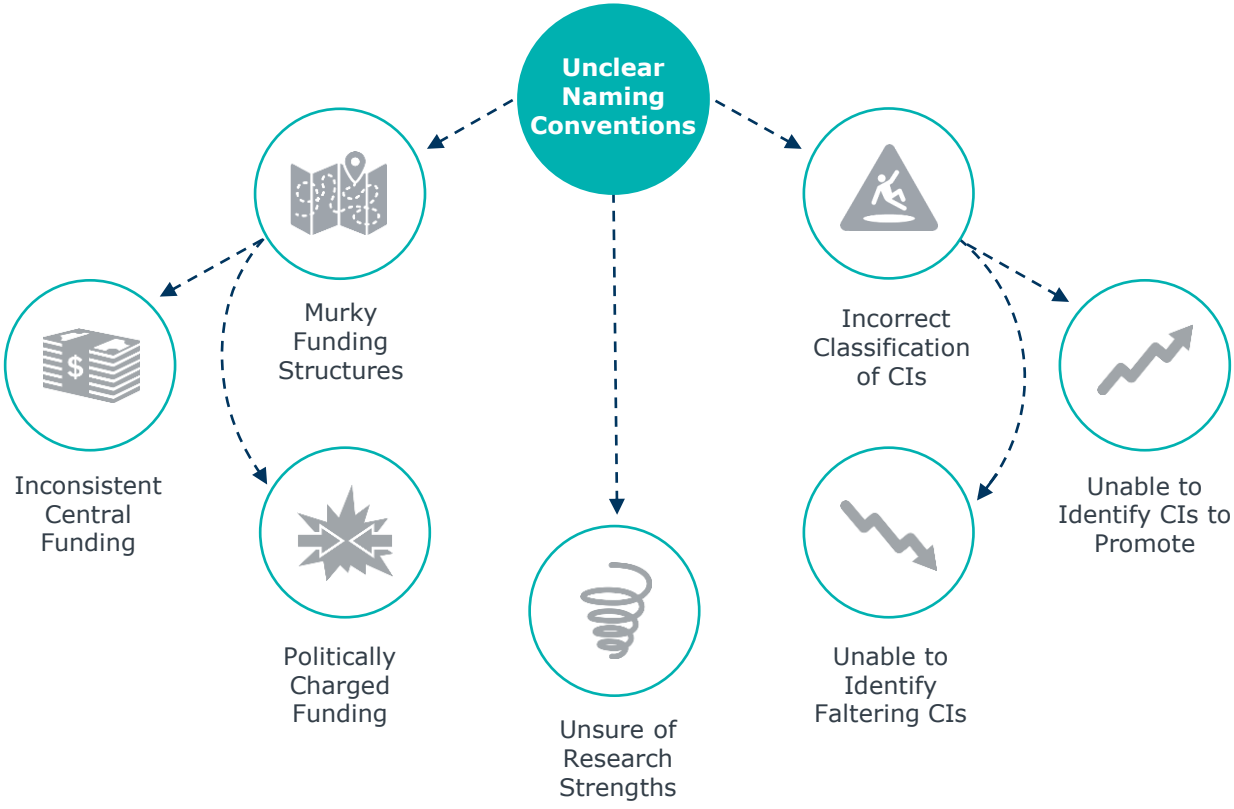
The Myriad Missteps of CI Management



Source: EAB interviews and analysis.

Naming Process Creates Cost-Shifting Opportunity

Align CI Designations with Oversight and Funding Structures

1 Define Naming Conventions

Create naming conventions based on multidisciplinarity and scope to distinguish between institutes, centers, and smaller entities.

2 Clarify Reporting Lines

Naming conventions clarify reporting lines by specifying which campus research leader is responsible for the CI.

3 Identify Internal Funding Sources

Naming conventions and reporting lines designate primary and secondary funding sources.

4 Shift Responsibility to Appropriate Funder

Naming process identifies entities that should be promoted or demoted from central management, creating a shift in cost ownership between the research office and college.

Research Themes: A Potential Outcome of the Naming Process

Universities identifying or updating their research themes (or grand challenges) draw from expertise across the CI portfolio. Once institutions determine themes, research leaders will seek to promote high-performing CIs in theme areas to a higher operating status so the CI can receive greater internal funding and executive oversight (e.g., President, Provost, VPR).

Source: EAB interviews and analysis.

1A. Create Criteria to Establish and Evaluate CIs

Criteria Represent the Minimum Standard to Earn CI Designation

Center and Institute Criteria

Multidisciplinary Scope:
Minimum requirement of multidisciplinary activity, with higher standards for institutes

Value Add:
CI adds value to institutional mission beyond what department, college provides

Unique Proposal:
CI focus is not represented by an existing research entity

Committed Internal Funding:
Confirmed financial support from primary and, ideally, secondary funders

Financial Sustainability:
CI presents a long-term plan for financial self-sufficiency

Common Questions

- Are there a required number of college collaborations? If so, how many for centers and institutes?
- What benchmarks are used to determine value-add? How is the potential value quantified?
- How are CIs organized and catalogued to easily check for potential overlaps?
- Taking into consideration the variety of CIs, how much support is required and for how long?
- Is long-term self-sufficiency *encouraged* or *required*?

Source: EAB interviews and analysis.

1B. Define Naming Conventions

Formal Naming Conventions Ensure CI Designations are Accurate

Scope of Multidisciplinarity

Small Entities

- Narrow scope of inquiry with some interdisciplinary activity, usually resides in a department
- Hierarchy exists within smaller entities (e.g., labs, programs, collaboratives)

Centers

- At least a multidisciplinary scope, usually crosses departments and sometimes colleges
- Pure research, service/core, or academic programming
- A standalone entity or part of an institute

"Membership centers" charge users fees to access research, teaching, equipment, and services

Institutes

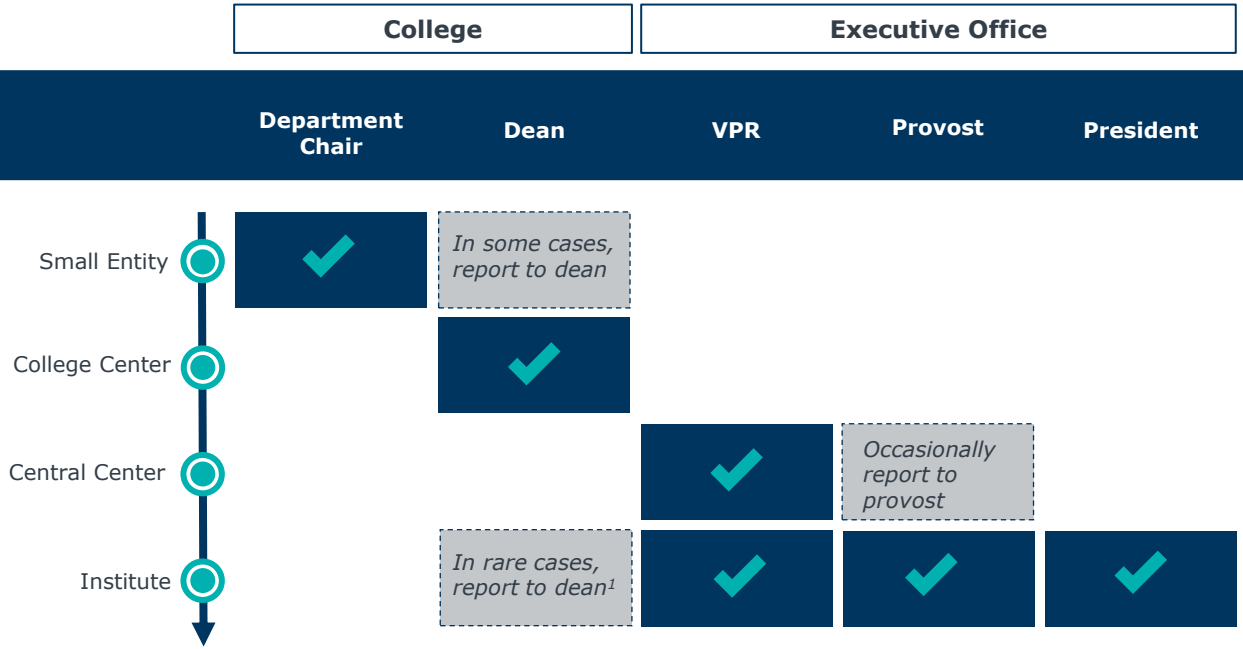
- Wide scope of inquiry and large faculty compliment, usually straddles colleges
- Can establish centers, which can be pure research subsets, administrative centers, or academic centers

Outside of the U.S., "Institute" denotes the ability to offer academic programs, confer degrees

Source: EAB interviews and analysis.

2. Clarify Reporting Lines

Naming Conventions Determine CI Oversight and Management

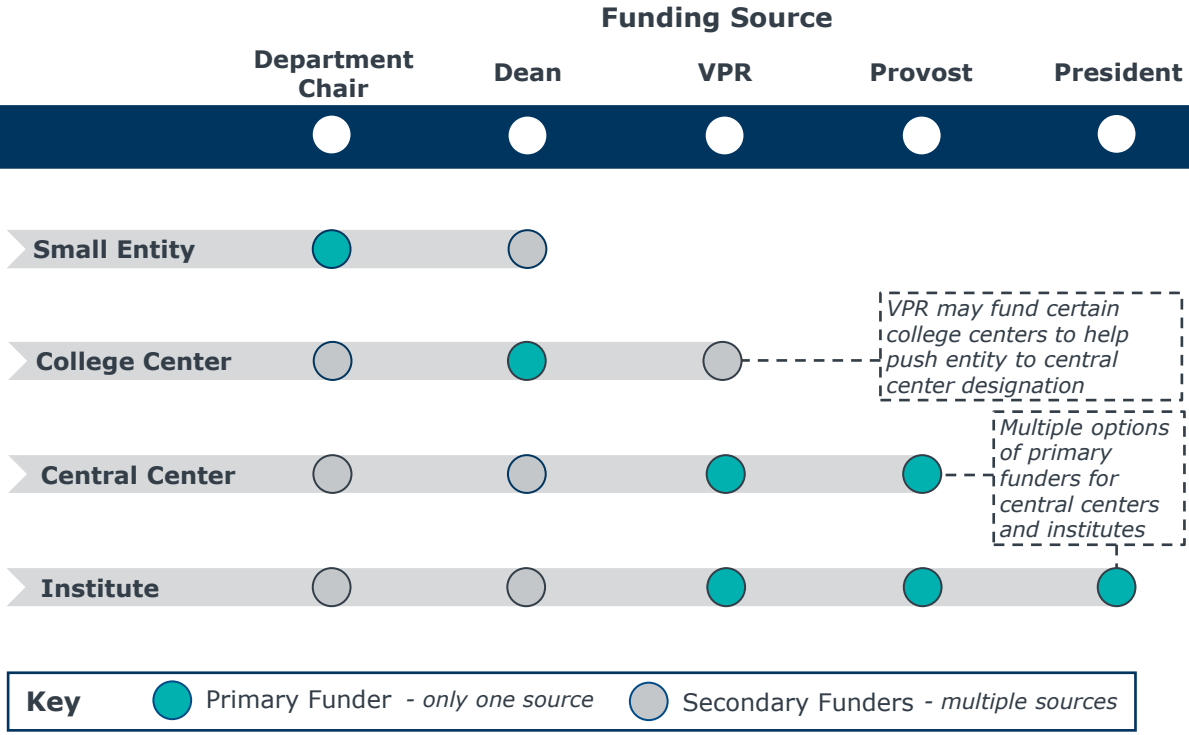


1) Institutes report to a dean most commonly in colleges of medicine and engineering.

Source: EAB interviews and analysis.

3. Identify Internal Funding Sources

Naming Conventions Delineate Primary and Secondary Funders



Source: EAB interviews and analysis.

4. Shift Responsibility to Appropriate Funder

Adjust Funding Policy to Reflect Shifting Oversight, Reinvest in Central CIs

Did a shift in oversight lead to an increase or reduction of centrally managed centers and institutes?

More Centrally Managed Centers

- Ensure sufficient funding from central, unit budget lines
- Create larger funding packets to help progressing centers
- Identify cost-share and seed funding opportunities with deans

Fewer Centrally-Managed Centers

- Shift funding toward remaining centrally managed CIs
- Set expectations with CI directors about available funds and expected outcomes
- Identify cost-share and seed funding opportunities with deans

?

How Do F&A Outlays for CIs Work?

Institutions that include CIs as an F&A recipient divert their funds from the dean's and individual PI's distribution portions. This ensures the department does not "lose" F&A funds, individual PIs don't "double-dip" by submitting through the CI, and the central research office retains administrative funding to support CIs.

Source: EAB interviews and analysis.

Building Teams by Trial and Error

Costly and Poorly Targeted Programs Don't Yield Desired Outcomes

Common Research Office Programs	Desired Outcomes	Reality Check
Speed Dating Science Cafés TED Talks Cocktail Hours Brown Bag Lunches Lecture Series	Build Faculty Research Teams	**Occasionally Successful** Connections made through programs tend to be short-lived because faculty are unclear about next steps or their ideas don't align with funding opportunities.
	Pursue L&C Opportunities	**Rarely Successful** Programs tend to produce one-off, small-scale collaborations that are not targeted at specific funding opportunities.
	Generate Innovative Solutions	**Very Rarely Successful** Attendees may generate some isolated ideas, but insufficient time and lack of structured guidance prevent them from advancing ideas to solve problems.

Source: EAB interviews and analysis.

Manufacturing Serendipity

Four Ways Research Offices Can Guide Team Formation

Approach	Focus	Audience	Cost[1]	Time[1]	Return
1. Networking Sessions	Targeted programs for faculty to make connections with others interested in specific topics	Small group of internal faculty	Low (e.g., venue, marketing)	Low (e.g., invitations, outreach)	Short-term, small-scale faculty teams
2. Seminars	Structured programs to teach faculty about emergent topics and agency opportunities	Medium group of internal faculty	Medium-low (e.g., room reservations, speakers)	Medium-Low (e.g., content development, speaker recruitment, advertising)	Short-term, medium-scale faculty teams
3. Symposia	Large-scale programs to convene experts on a specific topic	Large group of internal and external faculty, experts, and partners	Medium (e.g., speakers, travel)	Medium (e.g., speaker recruitment, logistic coordination)	Long-term, large-scale faculty teams
4. Pop-Up Institutes	Short-term initiatives to catalyze interdisciplinary team formation around topic area	Medium to large group of internal faculty and external partners (as needed)	High (e.g., core facility use, space, seed funding)	High (e.g., coordinating proposal reviews, reporting)	Long-term, large-scale faculty teams

1) Evaluated on a four-point scale of low, medium-low, medium, and high.

Source: EAB interviews and analysis.

Network with Intention and Focus

Iowa Hosts Speed Networking for New Core Research Facility

THE UNIVERSITY OF IOWA

Traditional Speed Networking Program		University of Iowa Microfabrication Facility (UIMF) Speed Networking Event
✗ Vague purpose and agenda	→	✓ Used the launch of new microfabrication facility to focus the program
✗ Advertised to all faculty (e.g., no targeted outreach or recruitment)	→	✓ Targeted biomedical scientists and engineering researchers most likely to benefit from attending
✗ Focused solely on building personal connections	→	✓ Raised awareness of interdisciplinary applications of available microfabrication technology
✗ Not oriented around collaborative funding opportunities	→	✓ Reviewed upcoming funding opportunities relevant to the research focus areas of UIMF
✗ No structured conversation support or prompts	→	✓ Facilitated cross-unit collaborations by highlighting potential topic convergence across disciplines

Iowa's Networking Results

75% Survey respondents reported a new potential research collaboration

Source: University of Iowa, UIMF Funding Opportunities and UIMF Speed Networking; EAB interviews and analysis.

Keep Faculty Abreast of Emergent Trends

Northwestern Organizes Seminar to Catalyze Collaboration in Quantum

Office of Research Development (ORD) Launching INterdisciplinary Connections Series (LINCS)

Northwestern University

ORD LINCS events feature short presentations by faculty to catalyze ideas and collaborations in emergent interdisciplinary areas (e.g., Internet of Things, National Microbiome Initiative) that align with federal funding.

Engineering Quantum Technologies

Presentations

- ORD provides introduction to funder priorities related to quantum technologies
- Faculty experts present on sub-topics and potential opportunities

✓ Helps convince faculty to collaborate in this area

✓ Allows attendees to identify potential peer collaborators

Agency Reports

- Provides attendees with repository of agency briefings and materials
- Shares analyses of agency strategic plans and emergent research priority areas

✓ Saves faculty time by not having to find and analyze materials themselves

✓ Encourages faculty to consider agency priorities when forming teams

$ Funding Opportunities

- Raises awareness of current and past related opportunities
- Establishes networks and discussion forums for future funding opportunities

✓ Provides faculty with list of already identified opportunities

✓ Prompts faculty to plan ahead for upcoming awards

Source: Northwestern University, Evanston, IL; EAB interviews and analysis.

Use External Facilitators to Help Generate Ideas

Iowa Hosts Three-Day Symposium to Solve the Opioid Crisis

The University of Iowa

Opioids Ideas Lab

Research office partnered with external organization to convene a multidisciplinary group of faculty experts for three days to examine the opioid crisis and collaboratively generate solutions.

Day 1
Build Rapport

- Get to know participant expertise and backgrounds
- Engage in team building activities
- Discuss specific topics and explain key program objectives

Day 2
Redefine & Iterate

- Redefine research problems from varying perspectives
- Form interdisciplinary research teams
- Generate innovative ideas and outline preliminary proposals

Day 3
Presentations

- Present proposals to competing teams and leadership
- Collaboratively use peer feedback process
- Incorporate critiques into proposal plans and development

Outcomes

4 Collaborative team projects emerged related to opioid crisis

2 Extramural research grants won as result of program

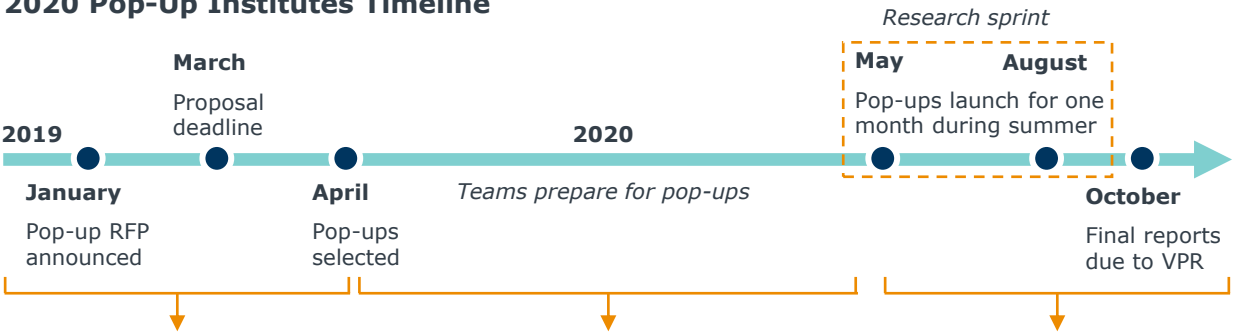
Source: Knowinnovation, Ideas Labs; University of Iowa, Opioid Ideas Lab; EAB interviews and analysis.

Temporary Locations, Permanent Collaborations

UT Austin Establishes Pop-Up Institutes to Rally Faculty

TEXAS
The University of Texas at Austin

2020 Pop-Up Institutes Timeline



Proposal Development

Research teams submit proposals for short-term centers designed to provide structure and support for rapid team formation and productivity. Proposals include abstracts, budgets, and letters of time commitment.

Pop-Up Preparation

Research office provides funding (maximum $50,000) and admin support for up to three pop-up institutes per year. Selected teams spend a year preparing for a burst of research activity. They must work with the research office to finalize program work plans and logistics.

Sample 2020 Pop-Up Institute

- Creating Inclusivity and Improving Outcomes for Sexual and Gender-Diverse People

Launch & Reporting

Each pop-up spends one month conducting high intensity research in preparation for a larger future research initiative. This timescale is longer than a workshop or conference but shorter than the creation of a permanent research structure.

Source: University of Texas at Austin, Pop- Up Institutes; EAB interviews and analysis.

Multidisciplinary Research Support Structures

- Targeted Leadership Identification and Training
- Differentiated Support Services
- Scaled Research Project Management Resources
- Proactive Proposal Interventions

PRACTICE

2

Even a Well-Crewed Ship Strays Without a Captain

CROs Struggle to Find Suitable Faculty Leaders for L&C Projects

Importance of Faculty Leaders for L&C Awards

- ✓ Provide credibility through their disciplinary reputation and funding track record
- ✓ Help build research teams using networks and connections
- ✓ Manage varying scientific perspectives using their content expertise
- ✓ Bridge communication gaps between research office and faculty research team

Challenges of Finding Equipped Leaders

- x Research offices are unclear on which factors to consider when identifying leaders
- x Faculty are not recognized or rewarded for developing leadership skillset
- x Existing leadership trainings fail to address L&C proposal management
- x Faculty resist research office directives

Opportunities for CROs

Use quantitative and qualitative data to identify faculty best positioned to lead L&C research teams

Develop trainings specifically for faculty leading L&C research teams

Source: EAB interviews and analysis.

Filtering the Pool of Prospective Leaders

Funding Credibility

Faculty must have successful funding track record for sponsoring agencies to view them as credible leaders.

Key Indicators:

- Total sponsored research funding (by relevant agency)
- Number of awards (by size and complexity)
- Number of times served as a lead or co-PI
- Number of co-authored publications
- Reputation and name recognition

Interest Level

Faculty must be willing to invest time and effort required to lead a collaborative team.

Key Indicators:

- Time and capacity
- Number of postdoc and graduate students advised
- Internal leadership positions (within department, college, center, institute)
- External leadership positions (within professional associations and agencies)
- Engagement with research office

Personal Attributes

Faculty must possess the skills and disposition needed to effectively lead research teams.

Key Indicators:

- Personal disposition
- Networks and connections to other researchers, institutions, partners
- Communication skills
- Management skills

Source: EAB interviews and analysis.

Building Research Leadership Capacity

Purdue's FLAIR Program Provides Targeted Research Leadership Training

Faculty Leadership Academy for Interdisciplinary Research (FLAIR) Program Focus

Foundational Leadership Skills in Research Context

- ✓ Team assembly
- ✓ Communication and media use
- ✓ Group dynamics
- ✓ Vision setting
- ✓ Time management
- ✓ Conflict resolution

Targeted Skills Needed For Leaders Of Large and Interdisciplinary Research Teams

- ✓ Federal agency knowledge
- ✓ Complex RFP analysis
- ✓ Budget and funding strategy
- ✓ Coalition building
- ✓ Outreach and engagement
- ✓ Complex proposal development

Program Details

PURDUE UNIVERSITY

Agenda Creation

Selected agenda topics based on gaps in current programs and personal knowledge of VPR, research staff, and past leaders of large research teams

Application Process

Received 24 completed applications (each included a one-page statement of interest, a one-page description of research, and a CV)

Fellow Selection

Chose a diverse cohort of 12 associate and full professors from across a broad range of disciplines and colleges

Source: Purdue University, FLAIR Program; EAB interviews and analysis.

FLAIR Training Agenda

PURDUE UNIVERSITY

2019 FLAIR Sessions

All sessions are Mondays, 1:30-3:30pm
ME 2180, SCHL B038, GRIS 10

Session 1 – Marching in the Same Direction: Forming Large, Interdisciplinary Centers and Institutes

Panel:
- Director of Center for Plant Biology
- Director of Institute for Global Security and Defense Innovation
- Former Director of Purdue Institute for Integrative Neuroscience

Sub-Topics:
- Garnering faculty interest with limited resources
- Balancing inclusion with focus
- Organizational structure
- Campus outreach, partnering, and bridge building
- Generate a sustainable funding strategy

Bi-weekly sessions with consistent time and place

Sessions are 2 hours: 1 hour for expert presentations and 1 hour for Q&A

Panel includes variety of speakers with real-world experience leading interdisciplinary teams

Topics are broadly focused, but panelists are given a list of potential sub-topics

Results

Program averaged 80% fellow attendance per session and has built strong reputation across campus

Source: Purdue University, FLAIR Program; EAB interviews and analysis.

The Winding Road of Supporting CIs

Unique Needs	Unmet Needs
• Competitive positioning for large, complex awards • Internal analytics to identify supporting faculty • Team formation and collaboration activities	CIs lack consistent and sufficient support expertise, as Research Development services evolve to meet demands.
• Scaled-up services in project management, budget oversight, award close-out • Prioritized access to peripheral services like proposal reviews, sub-contract processing	CIs necessitate sponsored programs services for larger awards with faster internal turnaround times and greater flexibility in budget management not readily available through unit-based services alone.
• Fundamental "small business" management • Collaborative research project administration • External advisory panel development • Annual report, and funding review support	CIs require long-term strategic planning support currently not provided by any office or support unit across campuses.

Source: EAB interviews and analysis.

Where the (Strategic) Rubber Meets the Road

Leveraging Research Development to Help CIs Compete

Positioning Research Scope to Win Awards

CIs need positional awareness support at launch and as they evolve; this includes funding identification and readiness assessments of CI capabilities.

Facilitating Team Formation

CIs use collaborative team formation programs to launch new teams, new ideas; this includes engaging faculty from other CIs, universities, and sometimes countries.

Using Data to Identify Interested Participants

CIs require support in recruiting faculty to join their ranks; this includes recruiting current faculty and prioritizing high-demand recruits during departmental hiring.

INDIANA UNIVERSITY

IU's Quantum Science and Engineering Center

While IU has a successful history in the quantum field, a competitive review determined that they needed a formalized center to compete for bigger DOE[1] funding.

THE UNIVERSITY OF IOWA

University of Iowa's Networking and Symposia

The University of Iowa uses several team formation activities to support CIs: networking events to identify new center ideas and symposia for institute launches.

Using Internal Data to Fill CI Research Gaps

Institutions leverage competitive intelligence data to identify high-performing, early career recruits to join existing CIs, rather than focusing on established individual researchers.

1) Department of Energy.

Source: Indiana University *Quantum Science and Engineering Center*; University of Iowa *Sparking New Ideas*; EAB interviews and analysis.

Quality Support, at Scale

Determining Which Service Model Achieves CI Support Goals

Dedicated CI Administrator

Research office hires and assigns a research administrator for each CI.

SAINT LOUIS UNIVERSITY

How It Works

- Dedicated administrator joins CI at launch and supports through initial funding and setup phases
- Administrators then serve as generalists, performing tasks like advocating for resources and connecting CI researchers to core services
- All CI administrators report back to the research office with best practices and broader service suggestions

Regional Shared Services

Shared service centers supporting six clusters of colleges referred to as regions.

Berkeley UNIVERSITY OF CALIFORNIA

How It Works

- Region leader is a current faculty member selected by and reporting to the represented deans
- CIs and their most common collaborators receive discipline-specific, scaled administrative services
- Familiar, embedded staff retained at a higher rate; continuity makes faculty more trusting and happier

Outcomes

Service Time ↓

Service model should reduce time to complete services and time spent seeking out services

Satisfaction ↑

CI directors, faculty, research staff should consistently report greater satisfaction

Risk ↓

Staffing specialization should reduce audit errors and CI-level non-compliance

Reputation ↑

Higher opinions among sponsors, including internal

Cost ↓

Some models can achieve these results at scale

Source: University of California Berkeley's Regional Services; EAB interviews and analysis.

Even the Best and Brightest Need Extra Help

CI Directors Require Leadership and Management Support

Trainings to Offer

Basic Business Administration

- **Challenge:** Most new CI directors have little experience assigning tasks or balancing a multi-stream budget
- **Service:** Introductory trainings should be available for all CI directors; more advanced sessions can be offered as-needed

Research Management

- **Challenge:** Some CI directors lack experience managing large-scale, collaborative research with peers
- **Service:** Tailored training for research management and leadership, like **Purdue University's** FLAIR Program[1]

Structures to Provide

External Advisory Boards

- **Challenge:** CI directors cannot balance all strategic and operational decisions alone
- **Service: University of Kentucky** research office helps convene external advisory boards for CIs and includes external participants on their CI funding review panels

Metrics and Reviews

- **Challenge:** CI directors dedicate significant time to reporting—but not monitoring—critical success metrics
- **Service: Saint Louis University** requires an executive sponsor from the CI's unit to serve as a director's accountability partner and help monitor metrics and guide connections

1) EAB Whitepaper: *Launching Research Faculty Leadership Development Programs*

Source: EAB interviews and analysis.

Where Do Super-Users Still Need Help?

How to Scale Customer Journey Mapping to Identify CI Needs

Capture the Full Journey

- Research administrators (including unit staff) compile their identified research office touchpoints
- Faculty, either in committees or departments, draw their own maps

Unpacking CI Journey

Task both center-involved PIs and administrators with mapping administrative processes to expose misperceptions about timing and support responsibilities.

Chronicle Breadth of Needs

- Differences between administrator and faculty maps highlight education (and/or service) needs
- Feedback on intensity of need at different touchpoints also highlights missing services

Uncovering CI Needs

Recognize the importance of a listening tour in identifying that CI needs are different than individuals, and CIs differ from each other.

Craft Responsibility Matrix

- Research office constructs a list of which tasks exist for each touchpoint
- They then assign ownership of each task to the PI, unit-based staff, or central staff

Balancing Responsibilities

Establish a baseline of responsibility for the research office to maintain; then work with CIs to determine what should be managed by departments, colleges, and the CIs.

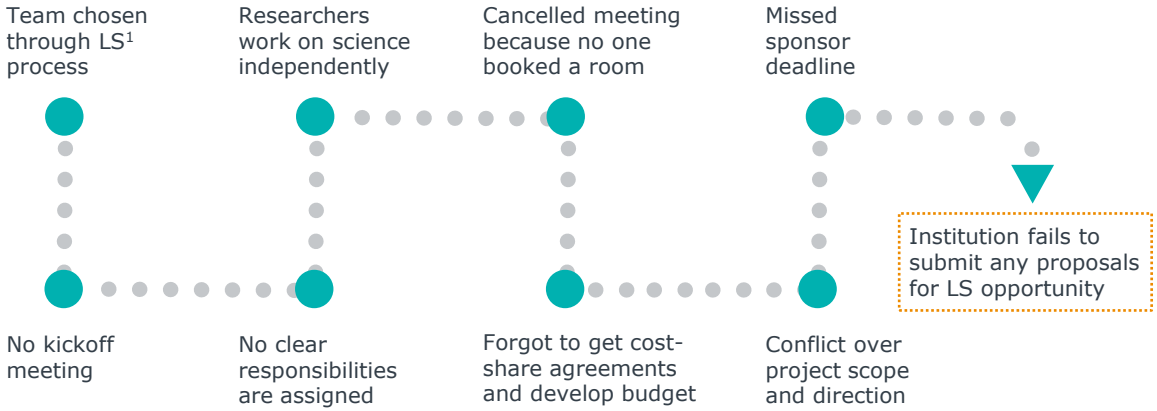
Click here for EAB's Responsibility Matrix Toolkit.

Source: EAB interviews and analysis.

When the Ball Gets Dropped

Faculty Tend to Prioritize Science over Administrative Requirements

Common Failure Points in Coordinating Team Proposals



Research Project Management Resources

- Self-Service Toolkit
- Ad Hoc Support Team
- Dedicated Project Manager

1) Limited submission.

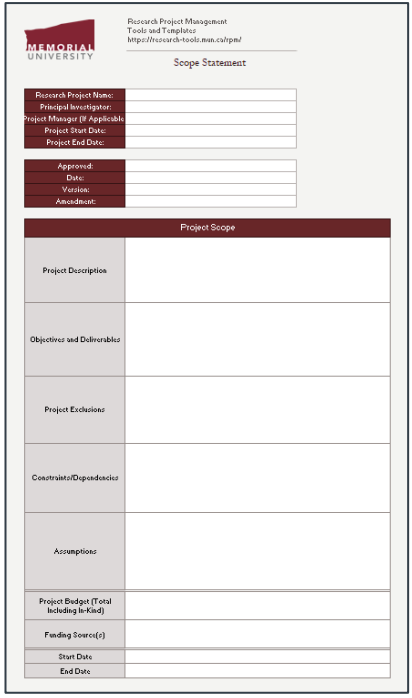
Source: EAB interviews and analysis.

Build a Repository of Self-Service Tools

Memorial Translates Project Management Principles to Research Context

RPM[1] Tools	Purpose
Intro to RPM[1] Guide and Video	Educate researchers on purpose of RPM, key processes, and tools
Project Scope Template and User Guide	Develop high-level project overview that includes objectives, deliverables, and activities
Project Schedule Template and User Guide	Create timeline and visual representation of milestones with workload descriptions
Project Budget Template and User Guide	Build financial plan by anticipating direct costs, F&A costs, and funding sources
Risk Register Template and User Guide	Identify and proactively manage project risks after quantifying probability and potential impact
Roles and Responsibilities Template and User Guide	Clarify team member roles and responsibilities, along with accountability mechanisms
Stakeholder Communication Template	Create communication strategy for project stakeholders

Project Scope Template



1) Research project management.

Source: Memorial University of Newfoundland, Research Project Management Templates; EAB interviews and analysis.

Calling In the Rapid-Response Team

Research Staff Deployed for Short Term Proposal Development

University of Central Florida's "REACT" Approach

UNIVERSITY OF CENTRAL FLORIDA

R — Rapid Response
Determine availability and capacity to support teams pursuing L&C opportunities

E — Evaluate
Review RFP guidelines and determine needs (e.g., samples, templates)

A — Assist Faculty
Help with non-technical elements (e.g., biosketches, letters of collaboration, budgets)

C — Coordinate
Monitor project progress and liaise with collaborators

T — Track
Manage revisions and finalization—then document lessons learned

Tap Existing Staff to Support Faculty

Research development leaders assess availability and expertise of staff in their own unit, the broader research office, and cross-campus units (as needed) to form an ad hoc REACT support team.

Deploy On Case-By-Case Basis

Research development team does not require minimum award dollar amount to be eligible for REACT services, but they assess the complexity of projects seeking REACT support based on the number of PIs, types of disciplines represented, and potential impact.

Provide PM training for research staff to increase potential pool of people who can support L&C faculty teams.

Source: University of Central Florida, REACT Program; EAB interviews and analysis.

Invest in Dedicated Project Management (PM) Staff

Advantages of Dedicated PM Staff

Specialized Expertise

All PMs[1] are trained and certified to manage complex projects—those with university research experience can provide more targeted support for managing L&C proposals and awards.

Staff Capacity Planning

Dedicated PMs for L&C proposal development can allow other research office staff to reclaim time and prioritize other activities.

Assessment and Evaluation

PMs regularly capture and analyze process data that can be used to identify and address service gaps experienced by faculty.

SFU SIMON FRASER UNIVERSITY

Case in Brief: Simon Fraser University

- Hiring one-off PMs in the greater Vancouver area was too expensive due to high demand and salary expectations
- Office of Institutional Strategic Awards created team of 7 dedicated research PMs to deploy against L&C opportunities
- PMs serve as liaisons between research team, funding agencies, partnering institutions, and administrative units
- PMs spend time:
  - Facilitating communication
  - Developing project schedules
  - Coordinating proposal development
  - Ensuring budget and RFP compliance
- Faculty can use existing grant funding to buyout PM time, which helps research office cover PM staffing costs

1) Project managers.

Source: Simon Fraser University, Research Project Managers; EAB interviews and analysis.

If Everyone's Good at Science, How Do We Win?

Non-Technical Factors Are Key Differentiators for L&C Proposals

> **Reviewers are looking for any reason to reject without review**. Even something as seemingly small as a formatting error or going one sentence over the page limit can stop the reviewer from even reading the proposal. And you do not want to see all this effort go into a proposal only for it to be returned without review. That's more of a failure than actually losing because it's something we have complete control over."

Director of Research Development, Public R1 Institution

Source: EAB interviews and analysis.

1. Establish Tiered Notification Policy

Require Earlier Notification of Intent to Submit for L&C Awards

Advantages for Faculty

- Low barrier to entry (e.g., email research office)
- Research office is responsible for initiating follow-up
- Helps them access full range of proposal resources and support

Advantages for Staff

- Improved workflow planning
- Early identification of faculty interest and teams
- Can intervene earlier during proposal development

Establishing a Tiered Notification Policy

Institutions customize notification deadlines based on proposal type and specific opportunity requirements.

	University of South Florida	University of California San Francisco
Standard Solicitations (e.g., R01, R21, individual investigator)	3 to 5-day notification	30-day notification
L&C Solicitations (e.g., center grants, P01, U54)	45-day notification	4 to 6-month notification
Other Solicitations (campus-specific)	Mandatory Cost Share; 30-day notification	Subcontracts or International; 60-day notification

Source: University of California, San Francisco, Submission Policy; University of South Florida, Submission Policy and Large, Interdisciplinary, or Otherwise Complex Proposals Policy; EAB interviews and analysis.

2. Build Repository of L&C Templates and Examples

Share Previously Submitted L&C Proposals to Kickstart Writing Process

Templates for Non-Technical Components of L&C Proposals

Research offices should provide:

- ✓ Broader impacts
- ✓ Data management plan
- ✓ Letters of support or collaboration
- ✓ Leadership plan
- ✓ Third-party contribution
- ✓ Complex budget
- ✓ Grad/postdoc mentoring plan

How to Obtain Real-World Examples of L&C Proposals

Access submissions through sponsored programs/eRA

Request faculty "donate" prior submissions

Encourage limited submission teams and internal seed funding recipients to share their final submissions

Submit a Freedom of Information Act (FOIA) request to federal agency (not peer institution)

Appalachian State University created a web page with info on available sample proposals and directions for how to obtain copies.

Source: Appalachian State University, Sample Proposals; EAB interviews and analysis.

3. Coordinate Targeted Proposal Reviews

Use Proposal Reviews to Provide Feedback, Address Common Problems

Types of Reviews

Review Type	Problem Addressed
Blue Team reviews initial capture plan with focus on win strategy	Overarching strategy is not agreed upon before proposal development
Black Hat Team predicts competitors' solutions to help inform proposal strategy	Teams write proposals without considering how to distinguish themselves from competitors
Pink Team reviews outline or early sections to check pre-writing strategy and identify lingering gaps	Teams draft full proposals without first ensuring their writing strategy is sound
Green Team reviews budgets and pricing	Budgets for L&C proposals are highly complex and often involve cost-sharing and matching funds
Red Team reviews fully drafted proposal to simulate the funder evaluation process	Teams overlook shortcomings and biases by failing to assess proposals from an outsider perspective
Gold Team reviews and approves final proposal	Feedback and edits from red team review are not implemented before submission
White Glove reviews final proposal to identify imperfections in formatting, graphics, printing	Teams and reviewers focus more on content than aesthetics, so submissions still have simple visual errors

Pink Team

Lessons Learned:

- ✓ *Do not wait for full draft—pull forward strategy conversations*
- ✓ *Include range of experts (e.g., technical, proposal, management)*

Red Team

Lessons Learned:

- ✓ *Establish incentives for reviewers*
- ✓ *Weigh pros and cons of standing versus ad hoc review committees*
- ✓ *Consider potential conflicts of interest*
- ✓ *Facilitate feedback sessions post-review*

Source: Shipley Associates; EAB interviews and analysis.

4. Provide Graphic Support and Resources

Leverage Existing Graphic Resources, Build New Capacity As Needed

Potential Graphic Support Providers

Source	Expertise	Cost
External consultants	★ ★ ★	$$$
Research communications team/staff	★ ★ ★	$
Campus communication team/staff	★ ★	$$
On-campus centers (e.g., communication, data visualization, statistics)	★ ★	$$
Graduate students and postdocs	★	$
Undergraduates	★	$

Key

★★★ : High Expertise — $$$: High Cost

★★ : Moderate Expertise — $$: Moderate Cost

★ : Low Expertise — $: Low Cost

Forging strong relationships with campus partners can help reduce potential costs

Self-Service Resources

Training

Example: Texas Tech University

Graphic repository

Example: Penn State University

Logos and icons

Example: University of North Carolina at Chapel Hill

Source: Penn State University, Proposal Graphics Gallery; Texas Tech, Communication Training Center; University of North Carolina at Chapel Hill, Research Iconography & Pattern; EAB interviews and analysis.

Distributed Review Frameworks

Enhanced Annual Report and Financial Review Processes

PRACTICE

3

The Butterfly Effect and CI Success

Haphazard CI Reviews Hinder Research Potential

	Challenges	Impact
Annual Reports Reports required without follow-up	• CIs struggle to create goals, determine metrics to measure progress • Reports are not iterative • Lack of support mechanisms between review periods	• Reports do not show progress • Reports provide information on a snapshot in time, rather than transformation over time • CIs fail to showcase value-add
Financial Reviews Reviews misaligned with funding models	• Financial reviews are not aligned with funding cycles • Annual reports are not taken into account during review	• Finances and budgets are reviewed before or after funding cycle has begun • Funding decisions are made without complete information

Unintended Consequences

- Nascent CIs closed prematurely
- Successful CIs not identified, missed opportunity for promotion
- Underperforming CIs continue to receive central funding

Source: EAB interviews and analysis.

Striving for Balance in Reviews

Strengthened Annual Reports, Financial Reviews with Intentional Outcomes

Enhanced Annual Report Process

- Establishes standardized and CI-specific metrics, milestones to measure progress
- Builds on information from previous reports
- Supports CIs in creating goals and metrics, adjusting as necessary, and preparing reports

Timely Financial Reviews

- Align with internal funding cycles so funding is either renewed, redirected, paused
- Examine synthesized annual reports
- Analyze goals of successful CIs for next funding cycle
- Finalize off-ramp decisions for struggling CIs

Intended Outcomes

(More) strategic funding decisions

Identify, promote successful CIs

Develop nascent CIs

Source: EAB interviews and analysis.

Enhanced Annual Report Process

Key Components of a Different(iated) Annual Report Process

Timeframe

- Once a year for every CI with central funding
- Reports are iterative; each builds on previous versions and all are analyzed as part of formal funding pull-up

Evaluation Framework

- Measures progress towards standardized and CI-determined goals qualitatively and quantitatively

Evaluation components:

- Proposal applications
- External partnerships
- Physical space needs
- Personnel development goals
- Value-add to institutional mission

Example Reports

Rutgers University
progress report guidelines, benchmarks

University of Ottawa
annual report template

Action Steps

- **Develop Metrics**
  CI directors and advisors create milestones, metrics to measure progress
- **Check In on Progress**
  Directors and advisors meet regularly to discuss priorities
- **Review and Adjust**
  Adapt goals or create action steps as needed so CI remains at current operating level or evolves into new research or funding terrains

Source: Rutgers University Guidelines for CIs; University of Ottawa Annual Report Template; EAB interviews and analysis.

Timely Financial Reviews

Key Components of Formal Funding Reviews

Timeframe

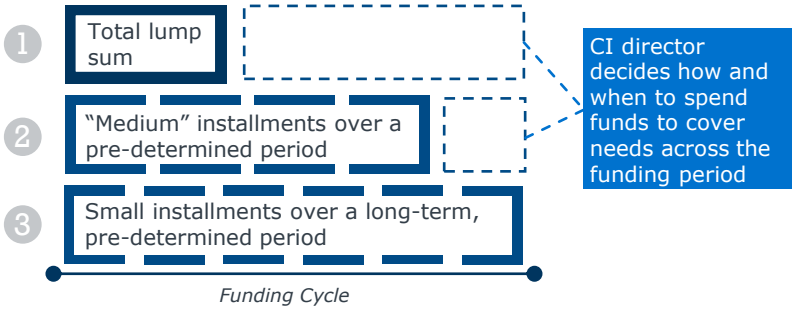
- At the conclusion of each CI's funding cycle
- Occurs every two, three, or five years

Evaluation Framework

- By incorporating annual reports, reviews analyze if and how CI met standardized and CI-determined goals
- Evaluation components include indicators used during annual reports and funding (internal and external) data

Funding Block Bands

Options for funding renewal for each CI within an institution



Potential Outcomes

- **Renew Funding**
  Funding finalized, goals for next funding cycle created
- **Reduce Funding**
  Funding reduced and finalized, goals for next funding cycle created
- **Pause Funding**
  Off-ramp decisions finalized; CI director and advisor have discussed off-ramp as part of enhanced annual review process and subsequent support, avoiding surprises

Source: EAB interviews and analysis.

The "Just Right" Funding Review Timeline

Finding the Balance Among Two-, Three-, and Five-Year Reviews

Five-Year Review

- Industry standard but does not always align with funding cycles
- May serve as a progress marker for other metrics like financial self-sustainability

Two- or Three-Year Review

- Appropriate for newly established CIs and those that receive fewer than five years of funding
- More common for institutions that established or updated policies in the last few years

Hybrid Model

- Three-year review for newly designated CIs
- Two years to course correct before formal five-year review

Case in Brief: Saint Louis University's New CI Review Policy

- New CIs receive two years of funding, but CI directors plan a five-year budget
- CIs complete a formal financial review after two years, with possibility of extension
- After five years in new model, will complete financial reviews every three years for all CIs

Source: EAB interviews and analysis.

Coda: A More Nuanced Approach to Sunsetting

Why "Sink or Swim" Fails to Reward Successful, Help Underperforming CIs

Spectrum of CI Review Outcomes

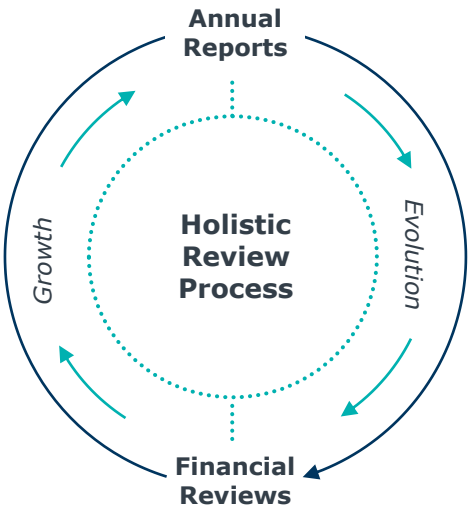
	Exceeding Expectations	**Progressing Toward or Achieving Expectations**	**Failing to Achieve Expectations**
			
	CI is performing beyond expectations, with plans to continue growth	CI is hitting metrics or demonstrating sufficient progress toward goal	CI is not hitting goals and is likely to lose central funding
Status Quo Next Steps	N/A	N/A	Sunset
What CIs Actually Need	Opportunities for promotion—more funding from more places for more work	Forward-planning for next steps—expanding research, new services, self-sustainability	Options identifying CI (and faculty) next steps with little to no funding

Source: EAB interviews and analysis.

For Your Strivers and High Achievers…

Next Steps for CIs Following Consecutive Positive Review Cycles

Enhanced Review Process



Next Step Options

Promotion	CIs advance to the next operational level, provided greater funding and support
Absorption	CI (mostly for centers) merges with a successful CI to increase competitiveness in a wider disciplinary area
Prioritization	Progressing CIs receive guidance and tailored support to help complete their next steps

Source: EAB interviews and analysis.

...And for the Underperformers

Next Steps for CIs Following Consecutive Negative Review Cycles

Enhanced Review Process

Next Step Options

Relegation
CI regresses to the next operational level, provided less central funding and support

Migration
CI shifts focus to non-research services, such as core operations or academic programming

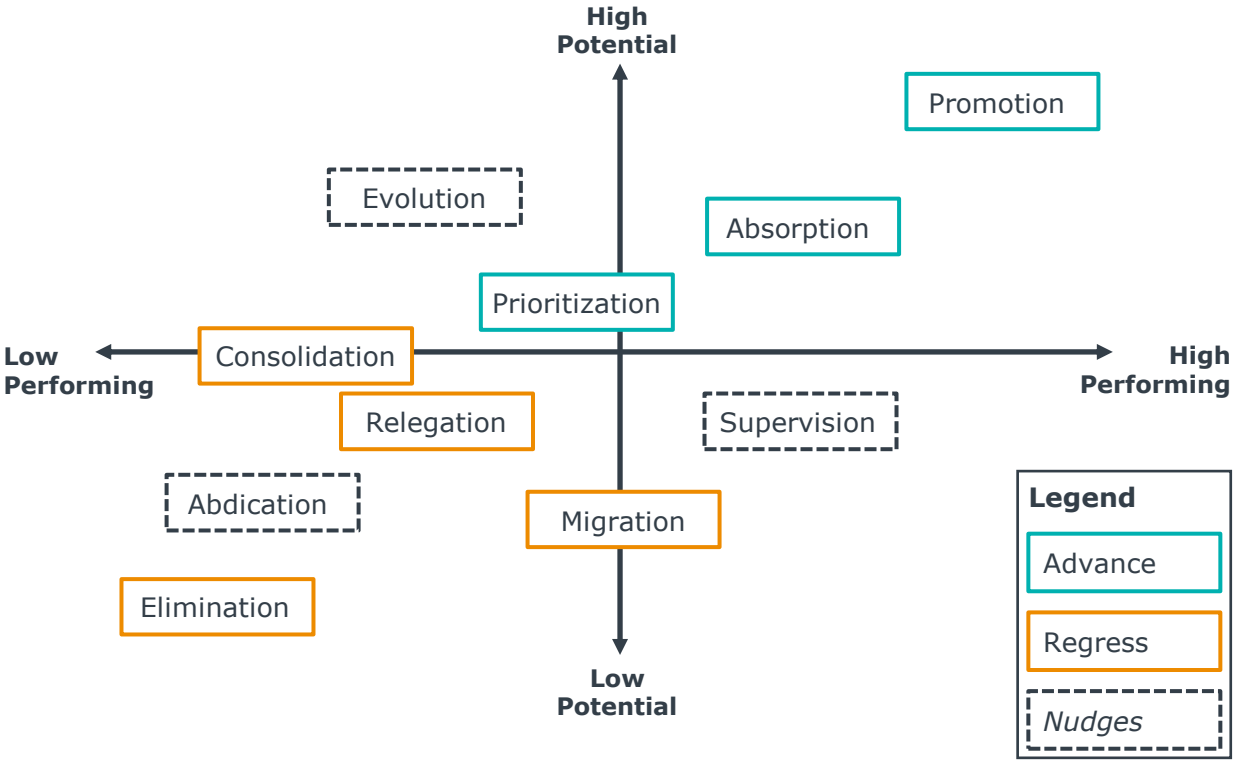
Consolidation
CI merges with a more successful CI to enhance overall capacity

Elimination
CI loses all internal funding, formal designation, and promotional status

Source: EAB interviews and analysis.

Pulling It All Together

Post-Review Next Steps Matrix for Plotting CI Performance and Potential



Source: EAB interviews and analysis.