The Center Grant Challenge: Crafting a Large Proposal Support Strategy

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Susan Roche, Manager – Research Administration
Gail Spatt, Director – Research Administration
Monique Tavares, Associate Vice President – Research Operations
Georgia Institute of Technology, Atlanta, Georgia, USA

Welcome

Learning Objectives

1. Describe 12 critical elements of one roadmap for supporting large center-scale proposals.
2. Identify elements of the roadmap with the potential to address current challenges at your home institution.

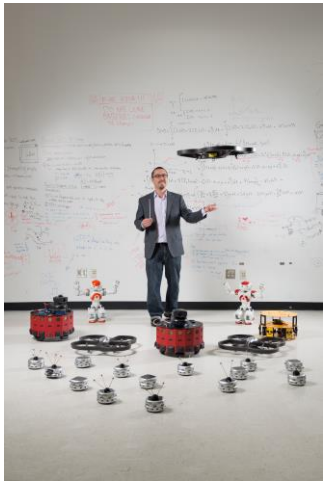
Today's Session

- Setting the Stage
- Our Roadmap: 12 Elements
- Critical Takeaways
- Small Group Discussion

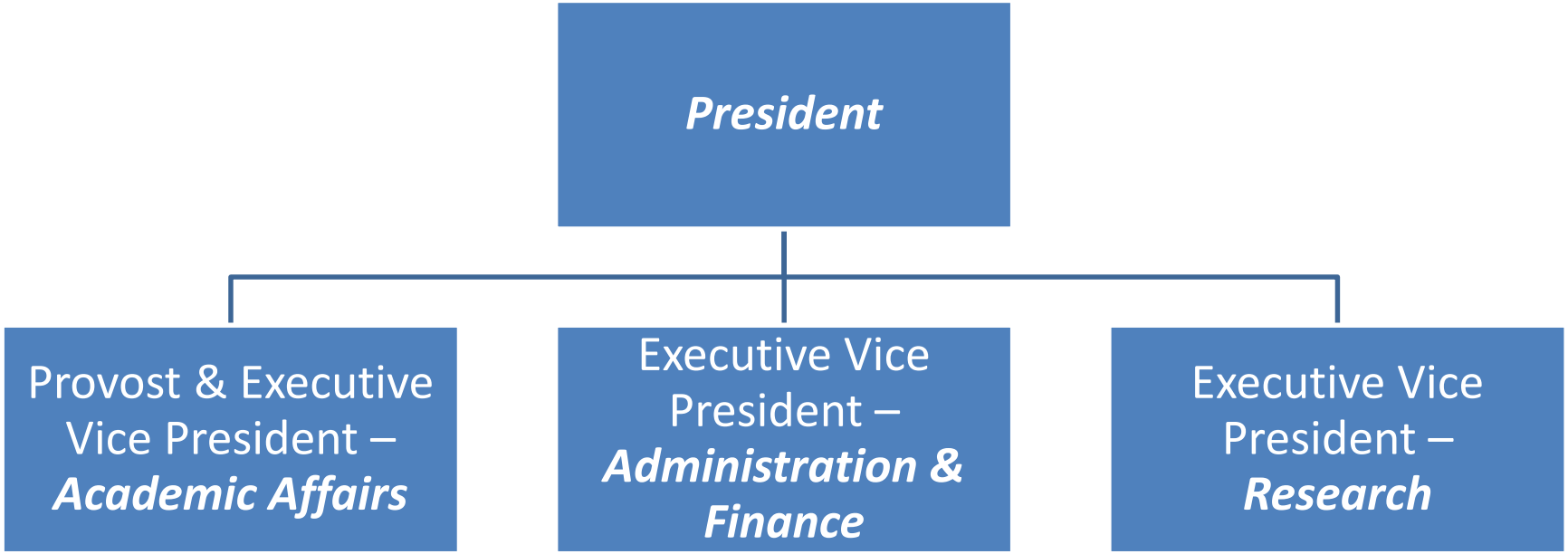

Setting the Stage

About Georgia Tech

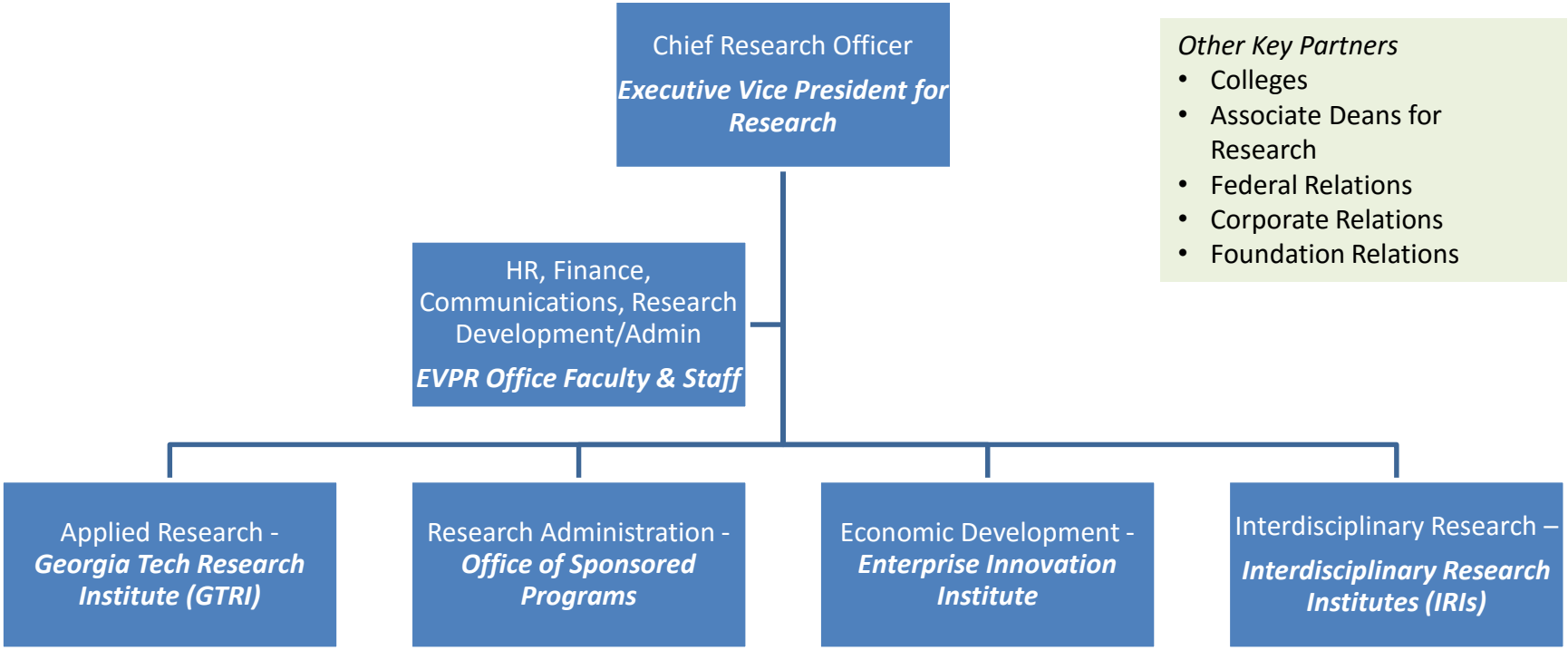
- 400 acres located in Atlanta, Georgia
- 6 Colleges, 28 Schools, 11 Interdisciplinary Institutes (IRIs)
- Total student enrollment of 30,258 (Fall 2017)
  - 16,215 undergrad
  - 14,043 grad
- Employee profile:
  - 7,523 faculty and staff
  - 990 instructional faculty
- FY17 sponsored expenditures: $825M
- #7 among public universities
  (U.S. News and World Report)
- NCAA Division 1, ACC



GT Leadership Structure



GT Research Support Structure



Other Key Partners

- Colleges
- Associate Deans for Research
- Federal Relations
- Corporate Relations
- Foundation Relations

The Charge

"We have been very successful winning large, high-profile, individual PI grants. Now we need to develop a model for success in leading large, center-scale grant efforts."

– *Steve Cross, Executive Vice President for Research*

Our Translation:

GT needs to win an ERC!

What is an ERC?

Engineering Research Center (ERC)

- National Science Foundation award
- Engineering-driven proposal, which requires that most fundamental science be in place
- 5 year award / 5 year renewal
- $20 million / $20 million renewal
- NOT limited submission
- Requirements
  - Multi-university
    (must include Minority Serving Institution)
  - Foreign collaboration
  - Strong industry engagement
  - Cost share from all partners

Most Recent Center Awards

- **ERC**
  - ERC for the Engineering of Living Tissues **$30M** *- 1998*
  - ERC for Low Cost Electronic Packaging **$30M** *– 1994*
- **Other Center-Scale Awards**
  - CCI: Center for Chemical Evolution **$32M** *- 2010*
  - MRSEC: The GT Laboratory for New Electronic Materials **$ 9.2M** *- 2008*
- **Several Recent Site Visits Without a Win**

Our Historic Approach

No differentiation for center-scale proposals

- Preparation starts with solicitation release
- If a limited submission competition, EVPR oversees selection process; if not, no involvement
- Responsibilities

PIs	Grant Admins / Finance	Central OSP
• Self-identify	• Proposal administrative tasks	• Checks submission for errors/omissions/accuracy
• Build teams	• Budgets	• Completes submission
• Find resources		

- Efforts end with the submission

A Little Introspection

Why are we not winning?

- Not intentionally grooming future leaders
- Thinking too small
- Trying to force a fit
- Too late off the starting block
- Not telling our story in a compelling way
- Not enough institutional emphasis on award

Opportunity

What can we do better during each stage of the process?

- Pre-Solicitation
- Preliminary Proposal
- Full Proposal
- Site Visit / Reverse Site Visit


Beattock
Annandale
Teviot
Teviotdale
Hawick
Carter Bar
Riccarton Junc
Newcastle
Peel Fell
Dumfries
Jedburgh
Eltrick
Eltrick Pen
Moffat
NORTHU

Our Roadmap

12 Elements

1. Identify a Project Manager
2. Provide an anticipated timeline
3. Organize an information session
4. Request a White Paper
5. Define a process that reinforces sponsor plan
6. Offer a robust review
7. Map gaps/feedback to requirements
8. Determine PI needs
9. Demonstrate “We’re all in!”
10. Meet regularly with teams
11. Keep your foot on the gas
12. Support event logistics

Large Proposal Stages

A. **Pre-Solicitation**
B. Preliminary Proposal
C. Full Proposal
D. Site Visit /Reverse Site visit

GT Internal Competition	
• LOI	12 submissions
• White Paper	8 submissions
• Draft One	5 submissions

A. Pre-Solicitation

1. Identify a Project Manager

- Every team needs a strong administrator to stay on top of all of the details
- Central point of contact for all partners
- Not the PI
- Project Manager role
  - Drives progress toward a timeline
  - Determines project systems and structure
  - Delegates responsibilities

A. Pre-Solicitation

2. Provide an anticipated timeline

- Create a structured plan of proposal development support milestones, based on the award history, far in advance of the expected solicitation release
- Build and communicate your plan, but be willing to be flexible
- The timeline is intended to generate and sustain proposal momentum
- Expect pushback

A. Pre-Solicitation

3. Organize an information session

- Leverage internal expertise
  - Faculty with center experience
  - Faculty with sponsor/program experience
  - For ERC include: Education/Industry/Diversity Resources
- Provide insight into sponsor priorities, what is involved in winning/running a center
- Facilitate connections with on-campus support resources

A. Pre-Solicitation

4. Request a White Paper

- Opportunity to obtain early scope information
- Key Questions
  - Is proposed research a match for award?
  - Is project scope of center magnitude?
  - Are there gaps in team composition?
- Focuses PIs on critical foundational considerations
- Chance to shape proposal, begin to strategize about project management plan, and assist with team matchmaking

Large Proposal Stages

A. Pre-Solicitation

B. Preliminary Proposal

C. Full Proposal

D. Site Visit / Reverse Site Visit

GT Internal Competition	
• Draft Two	3 submissions
NSF Competition	
• LOI	201 submissions
• Preliminary Proposals	179 submissions

B. Preliminary Proposal

5. Define a process that reinforces sponsor plan

- Adjust internal timeline to reflect sponsor plan
- Determine sponsor priorities and integrate as internal solicitation requirements
- ERC Preliminary Specifics
  - Making the case – Why this research? Why now? How are you going to change the world?
  - Partners – History, sum is greater than the parts
  - Management Plan – Effective plan? Right staffing?
  - Education and Inclusion – Full integration across project
  - Industry Engagement – History, strength

B. Preliminary Proposal

6. Offer a robust review

- Use sponsor selection criteria as internal review elements
- Leverage an array of internal experts as reviewers to consider the proposal from a variety of perspectives
  - Specific areas of science
  - Center leadership
  - Sponsor program
  - Diversity
  - Education
  - Industry Engagement

So now what?

Celebrate? Rest?

- **YES!** For a day.
- Then encourage your teams to begin work on their Full Proposal submission.

The Payoff!

- The sponsor has requested a Full Proposal, and your team is already a jump ahead!

Large Proposal Stages

A. Pre-Solicitation

B. Preliminary Proposal

C. Full Proposal

D. Site Visit / Reverse Site Visit

NSF Competition	
Full Proposals	17 invitations
GT Participation	
• As lead institution	2 submissions
• As partner institution	3 submissions

C. Full Proposal

7. Map gaps/feedback to requirements

- Review sponsor Preliminary Proposal feedback, and identify the appropriate section of the Full Proposal in which to address each element
- Important not to deny gaps/weaknesses, rather acknowledge and articulate how each will be addressed.

C. Full Proposal

8. Determine PI Needs

- You won't know if you don't ask
- Discuss what will need to be done during this stage: What can the team cover? What will require additional resources? What is the best way to address these needs?
- Leverage all campus networks/resources

C. Full Proposal

9. Demonstrate "We're all in!"

- This is the point at which we brought in external expertise
- EVPR office
  - Procuring/paying for services
  - Removing Institutional barriers/inefficiencies in supporting large proposals
  - Empaneling and administering review process with internal and external reviewers

C. Full Proposal

10. Meet regularly with teams

- Participate in meetings with the various groups from each team
- Engagement
  - Reinforces partnership/support
  - Allows for quick issue identification/resolution

And now?

Celebrate? Rest?

- **YES!** For a day.
- Then encourage your teams to begin preparing for a site visit.

The Payoff

- The sponsor has advised that they will be making a site visit and, once again, your team is already a jump ahead!

Large Proposal Stages

A. Pre-Solicitation

B. Preliminary Proposal

C. Full Proposal

D. Site Visit / Reverse Site Visit

NSF Competition	
Site Visit/Reverse Site Visit	8 invitations
GT Participation	
• As lead institution	2 teams
• As partner institution	2 teams

D. Site Visits

11. Keep your foot on the gas

- Immediately begin engaging all partners in preparing for a site visit
- The structure and focus of site visits varies widely by sponsor
- NSF site visits are highly structured, they offer Best Practices guidance on the ERC website
- Set the expectation that leadership from all partnering entities must participate

D. Site Visits

12. Support event logistics

- Ensure site visit is viewed as an institutional priority
- Make sure all attendees are prepped with a one page statement about the project (partners, leadership, research thrusts, etc.)
- Provide clear written expectations for EVERYONE who is participating (what to expect, role, behavior, etc.)

So now what?

Wait!

Wait!!

Wait!!!

Wait some more!!!!

And then it happens…

The Announcement

INDUSTRY NEWS › TECHNOLOGY

Georgia Tech-led group gets $20M federal grant to fund biomedical engineering research center

Sep 12, 2017, 11:57am EDT

Urvaksh Karkaria
Staff Writer
Atlanta Business Chronicle

A Georgia Tech-led research consortium received a nearly $20 million National Science Foundation grant to fund a new engineering research center.

The NSF Engineering Research Center for Cell Manufacturing Technologies (CMaT) will develop tools and technologies to help clinical facilities reproducibly manufacture efficient, safe and affordable cell-therapy products, Georgia Tech said in a statement.

Krishnendu Roy

ROB FELT

The Georgia Tech-led CMaT lab

ROB FELT

Examples of these highly promising therapies include T cell-based immunotherapies for blood cancers and a gene-modified stem cell therapy

NSF Announcement Video
https://www.nsf.gov/news/news_videos.jsp?org=NSF&cntn_id=242681&media_id=132795

Critical Takeaways

Critical Takeaways

- What you think is early….may well be late!
  - Successful teams begin years ahead
    - Forming professional and personal relationships
    - Collaborating on ongoing projects/initiatives
    - Forging strong engagement with industry
  - Anticipated timelines and support services drive development momentum
- This is definitely NOT business as usual, need to staff project accordingly
- At completion of every stage, team should continue assuming participation in next stage
- What teams want and what they need may not be the same
- One size definitely does not fit all!

What's Next at GT?

- Defining a more deliberate plan for supporting these types of proposals going forward
  - What qualifies?
  - Menu of services?
- Restructuring internal funding opportunities to more intentionally foster the team development required to compete successfully for center-scale awards

Small Group Discussion

Your Turn

1. What large proposal support strategies have proven successful in your organization?

2. Consider some of the challenges that you are now experiencing in your organization. Have you heard anything today that you think may want to try/explore?

Questions?

We're happy to help!

Susan Roche
Manager – Research Administration
susan.roche@gatech.edu

Gail Spatt
Director – Research Administration
spatt@gatech.edu

Monique Tavares
Associate Vice President – Research Operations
monique.tavares@Carnegie.gatech.edu