

"How do we, as RD professionals, rise to the challenge of concurrently supporting and coordinating the development of multiple large proposals to a single sponsor program?"

These often involve interdisciplinary projects for funding opportunities that limit the number of applications from a university, and often require pre-proposals, site visits, and long-term institutional commitments. Speed, timing, resourcefulness and creativity are crucial for success. Research development offices are increasingly involved in broadening institutional research portfolios by supporting multiple large-scale proposals—those with a budget greater than \$1M per year for more than two years and larger projects that involve multiple faculty and institutions and often imply significant university investment before, during and after the award period—at the same time and with increasing frequency, to the same program. Proposal development teams contribute to strategic planning, navigating university politics, and team building to craft competitive proposals with enough planning for the infrastructure to assure successful award management. How can we help make all of the disparate pieces come together when two, three, or more major proposals could each, alone, consume all available time? This panel discussion will focus on challenges and opportunities associated with *concurrent development of multiple large proposals to the same program*, including institutional strategy, idea development, preparation, and submission, and offer practical solutions for RD professionals who support these efforts. Attendees will leave the session with fresh ideas that will be adaptable to their institutions and be able to bolster their involvement across a wider spectrum of RD activities, ultimately contributing to a deeper and more diverse research portfolio.



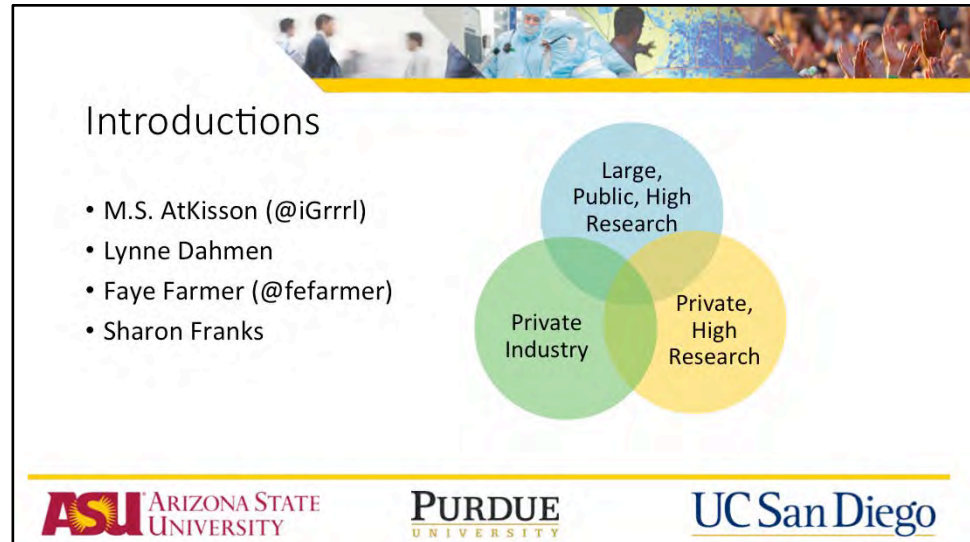
Going Big: Developing Multiple Ideas, and Proposals, to Scale

How do we, as RD professionals, rise to the challenge of concurrently supporting and coordinating the development of multiple large proposals to a single sponsor program?

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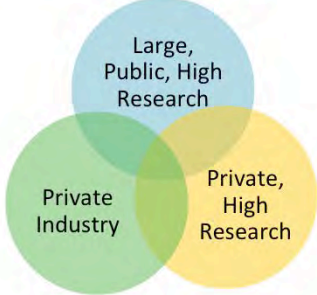
We have experience synergizing faculty efforts early in the research development lifecycle (e.g., seed grant programs, limited submissions, landscape analysis, faculty networking and training events), and stewarding proposals through submission with hands on logistical support (e.g., team-building, resource collecting, writing, and editing).

Together, the panelists have more than 38 years of experience with developing and supporting development of larger federal grants in various ways.



Introductions

- M.S. AtKisson (@iGrrrl)
- Lynne Dahmen
- Faye Farmer (@fefarmer)
- Sharon Franks



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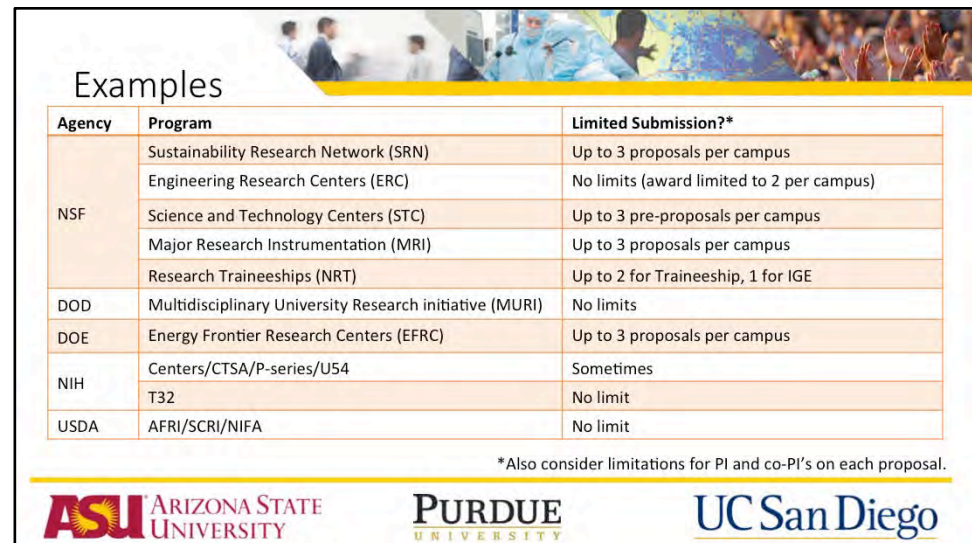
What are we talking about? There have always existed highly visible programs in the federal funding arena that allowed for more than one proposal, but as financial times are tight, our institutions are pursuing more of these programs concurrently.

What's large scale? Greater than \$1M annual budget.

Often include significant, explicit cost share (e.g., the ERC & MRI programs).

Anecdotally, we're finding more and more programs are limiting submissions by institution and then again narrowing that pool by using pre-proposal down selection.

Moving the selection process forward in the funding cycle, combined with increased pressure to propose multiple ideas to a single program, can overwhelm Research Development professionals in small and medium sized offices. This presentation will discuss ideas and best practices RD professionals can employ when faced with concurrent, large-scale submissions to a single program within the same sponsor.



The slide titled "Examples" features a table listing various federal funding programs and their submission limits. The table is organized into three columns: Agency, Program, and Limited Submission?*. The programs listed include the Sustainability Research Network (SRN), Engineering Research Centers (ERC), Science and Technology Centers (STC), Major Research Instrumentation (MRI), Research Traineeships (NRT), Multidisciplinary University Research initiative (MURI), Energy Frontier Research Centers (EFRC), Centers/CTSA/P-series/U54, T32, and AFRI/SCRI/NIFA. The submission limits range from "Up to 3 proposals per campus" to "No limit". A footnote at the bottom of the table states: "*Also consider limitations for PI and co-PI's on each proposal." The slide also includes logos for Arizona State University, Purdue University, and UC San Diego.

Agency	Program	Limited Submission?*
NSF	Sustainability Research Network (SRN)	Up to 3 proposals per campus
	Engineering Research Centers (ERC)	No limits (award limited to 2 per campus)
	Science and Technology Centers (STC)	Up to 3 pre-proposals per campus
	Major Research Instrumentation (MRI)	Up to 3 proposals per campus
	Research Traineeships (NRT)	Up to 2 for Traineeship, 1 for IGE
DOD	Multidisciplinary University Research initiative (MURI)	No limits
DOE	Energy Frontier Research Centers (EFRC)	Up to 3 proposals per campus
NIH	Centers/CTSA/P-series/U54	Sometimes
	T32	No limit
USDA	AFRI/SCRI/NIFA	No limit

*Also consider limitations for PI and co-PI's on each proposal.

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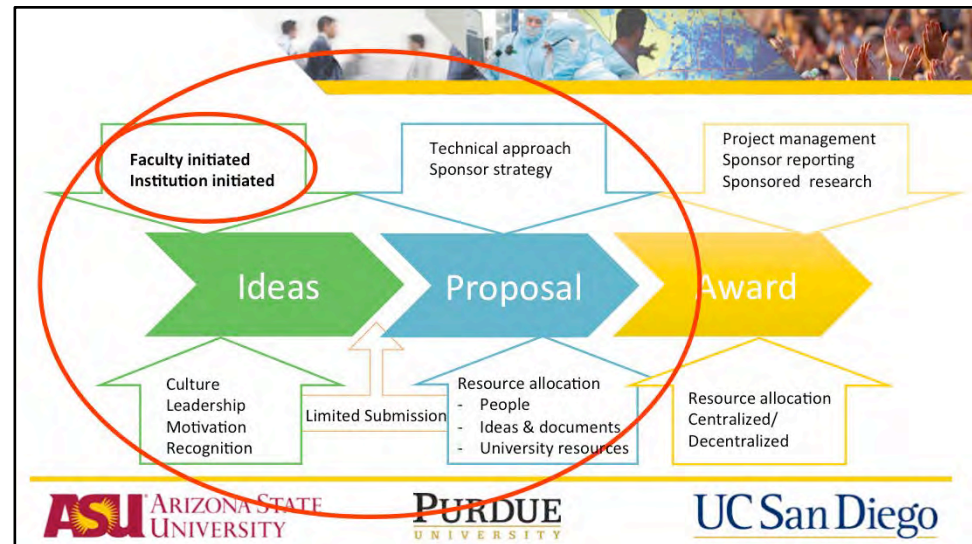
Most very large proposals develop not in isolation, rather within a **dynamic ecosystem in which many factors influence a proposal's origins, development, and ultimately outcome.**

This figure highlights key elements of the proposal-development ecosystem. At subsequent stages along the proposal development pathway (progression of L-to-R colored arrows), there are multiple factors (upward and downward pointing arrows) that influence the development and outcome of the process.

We'll focus on **factors that are especially relevant to how we as RD pros concurrently support development of large-scale proposals to the same program**, in particular the more upstream activities (inside the larger red oval) – those that take ideas and transform them into competitive proposals.

We'll be doing a tag-team presentation that begins with the discussion about origins of proposals (the smaller red oval), then moves on to contextualization, and finally to resources.

Most proposals are “born” when they are initiated by either the investigators themselves, or by institutional leadership.



Let's take a look at both kinds of "births", beginning with the faculty-initiated type.

Advantages of Faculty-Initiated Proposals:

Team members *choose* to work together, and presumably like/respect each other, or at least know what they're getting into. Such **self-assembled teams** may have a better chance of success than institutionally "arranged marriages".

Self-assembled teams are likely to be highly **invested** in success. And the perception that **faculty are driving** can be more appealing to the participants than efforts in which participants may feel like they are being managed to serve the needs of others.

Challenges of Faculty-Initiated Proposals:

- May not have the campus-level "big picture" perspective
- May need to work harder at getting requisite institutional support, e.g. cost sharing

So, when we support multiple, self-assembled teams, what can we do to try to ensure that our focus is on **strategically sound** pursuits, rather than on what may be ill-fated and resource-costly exercises?



Ideas

Faculty-initiated

Advantages:

- Team has self-assembled; avoids 'arranged marriage' issues
- Invested PI/team
- Faculty-driven

Possible challenges:

- May lack big-picture organizational perspective
- May need to build campus leadership support

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We can assess the characteristics of each team that might make it a smarter, or conversely more risky, investment in terms of RD support. Such a **holistic assessment** can serve as a basis for determining appropriate levels of RD investment.

Slider imagery is to emphasize the importance of evaluating **multiple factors**, and then taking stock of how they collectively influence decision-making about RD support.

Information to complete this type of assessment comes from multiple sources: RFA and other sponsor-derived sources, PI(s), others in the know about the funding landscape on campus and beyond.

For concurrent large proposals to the same program, assessment might look closely at factors like these:

(1) How competitive is this idea/team likely to be?

How well do the ideas proposed **fit** with the opportunity in hand? Is there a clear fit, or might this be a case of trying to force fit an idea to an opportunity for which the fit is questionable?

What advantages or **edges** might the team have over other competitors, internal and external? Does the team have uniquely relevant strengths in people, infrastructure, and/or track record?

(2) How feasible will it be to generate a truly competitive proposal?

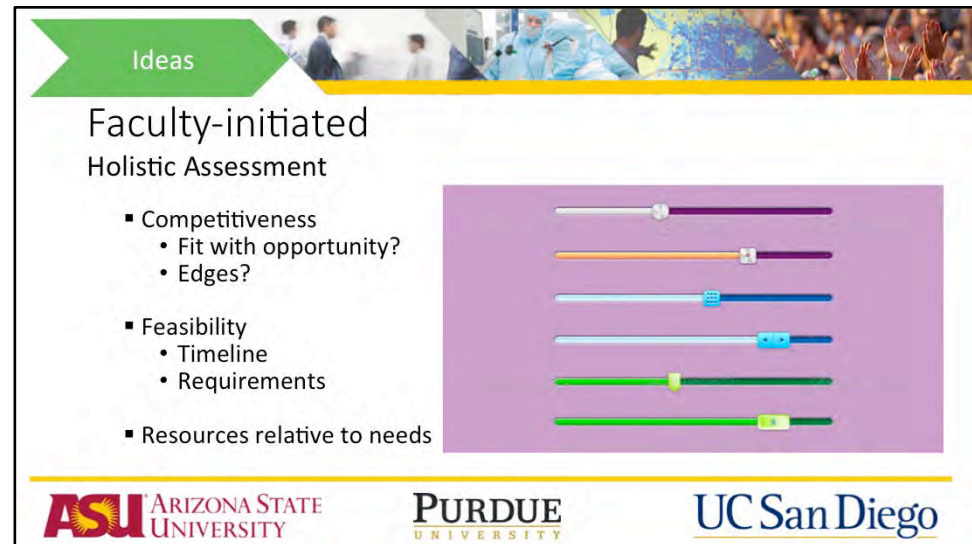
Timeline: Is it 3 months or 3 weeks before the proposal deadline?

What is the realistic bandwidth of the PI in this time period. E.g., Does the lead PI has a heavy teaching load or extensive travel that may preclude her giving the effort the power it needs to be successful?

How readily can specific **requirements** be met? E.g.,

- A recent DOE competition called for a 1:1 cost match on a \$12.5M budget. Not so easy to scrape together.
- NSF ERCs require extensive partnership with industry, these industry commitments typically can't be secured overnight, or even in a few weeks.
- For programs where it is clear that only one award will be made, is the team before us realistically strong enough to compete?

(3) What resources does the team bring to this endeavor? Do they already have a great budget person, admin staff, and a graphics guru



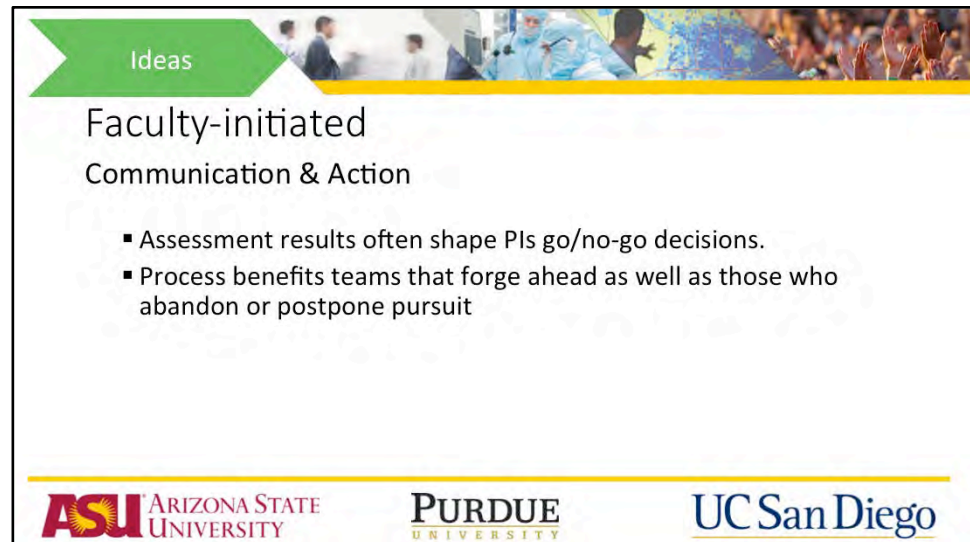
Results of the holistic assessment – preferably actionable feedback to the PI/team – should be communicated as early and constructively as possible.

Outcome of the assessment may be a **go/no-go decision** about moving forward, or a plan and timeline for such decision-making.

It's important to point out that such an **assessment benefits all** involved.

- Teams that move forward – as well as we RD folks supporting them – gain a clearer understanding of the teams/ strengths and needs.
- Teams that elect to abandon, postpone, or redirect can more efficiently apply their limited resources, mainly time.

Now to Faye who will discuss proposals that are initiated **top down – by institutional leadership**, rather than by faculty.



Ideas

Faculty-initiated Communication & Action

- Assessment results often shape PIs go/no-go decisions.
- Process benefits teams that forge ahead as well as those who abandon or postpone pursuit

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Sometimes, proposals come to us from “on high”. For example, when a Dean or President wants a “crown jewel” or it’s program equivalent. In these cases, there is a different kind of pressure placed on the RD professional.

These Institution-initiated proposals should align with the institutional strategic plan and overlap with the school or department goals (or strategic plan if it exists). In these cases, the desire for pursuit needs to be explicit and well defined.

Supporting multiple institution-initiated proposals to a single program is a directive for the faculty and the RD professional. In this case, it is likely that strapped resources will continue to be strapped. In an ideal world, there may be funds to pay for additional resources. In this case, more emphasis should be put on relationship management than adhering to a process.



Sponsor programs and their potential solicitations should be a standing discussion item at the VP and/or dean level meetings, and tracked by RD professionals. As early as possible, the RD professional should hold open meetings on a particular topic or program. From these discussions, groups can self assemble, assess strategy, find research approaches that are congruent to the solicitation, leverage existing experience and knowledge (sometimes funding). Ideally, monthly large meetings turn into weekly meetings once the solicitation is released.

RD professionals can align funding opportunities proactively with institutional and department initiatives. As departments or schools mature, or awards are made, a critical mass of research expertise emerges. The RD professional is able to step into this critical mass and ignite it with an existing or forecasted solicitation.



Ideas

Institution-initiated

Scenarios

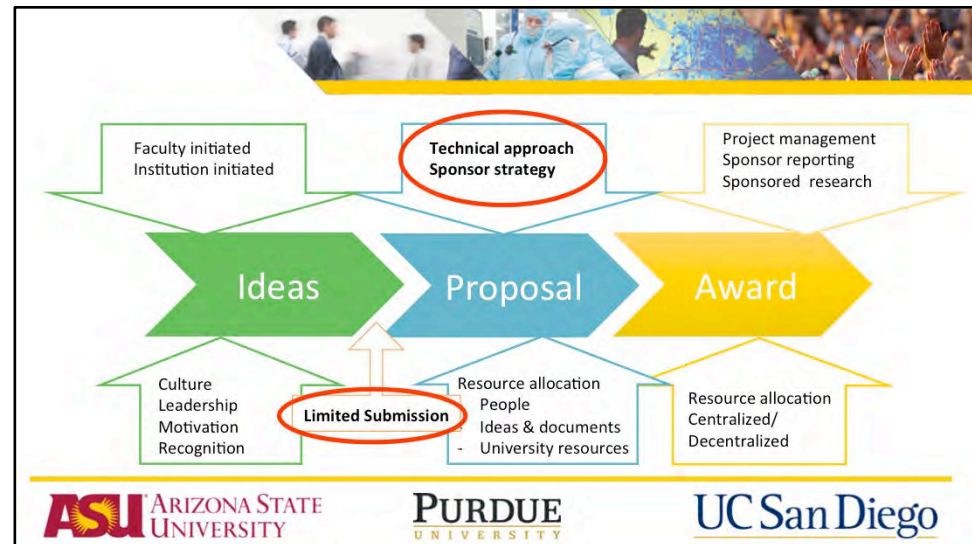
1. Early positioning
2. Seizing opportunities at the school/department level

Recommendation: Over communicate

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As you prepare your faculty leads and teams, there are two important factors to consider that may influence how you proceed.

- 1) Selection and support of faculty leads and teams can also be determined through analysis of the technical approach proposed and the needs/wants of the sponsor generally and program specifically.
- 2) If the solicitation is limited in some way, then the formal process of selection must occur. Generally speaking, this is done through peer review, but not always.




Adapted from industry or business intelligence practices, university competitive analysis focuses on four key topics:

1. The sponsor and program – past awards, strategic plan, future budget
2. The organization – past performance, strategic plan, current and future expertise
3. The competition – past awards, peer institutions, aspirational peer institutions, others with key resources to perform the work

The objective is to complete a thorough dive into existing background information so that we can enhance our pursuit activities and proposal writing. Activities would include speaking to program officers, identifying team members and institutions to partner with, identifying potential competing interests and conflicts of interest.

For example, the ERC has a long, storied program (>25 years of work), with four “categories” of centers (Advanced Manufacturing, Biotech and Health, Energy/Infrastructure, Microelectronics). But, the “architect” of the program recently stepped down. New leadership, with new priorities is likely to influence the next award cycle.

Contrast this with the SRN, which is relatively new and has only two prior awards, which were quite different from one another. Colorado’s focused on sustainable natural gas use while Penn State’s looked at mitigating climate risks. Colorado has eight partners, all located in the United States, four of them in Colorado. Penn on the other hand has 22 partners, eight of which are international. This year,



Ideas

Competitive Intelligence

- Ethical collection and analysis of information
- Analysis includes both fact finding and inference
- A directed process that involves tactical research and critical thinking
- Leads to key decisions to improve pursuit

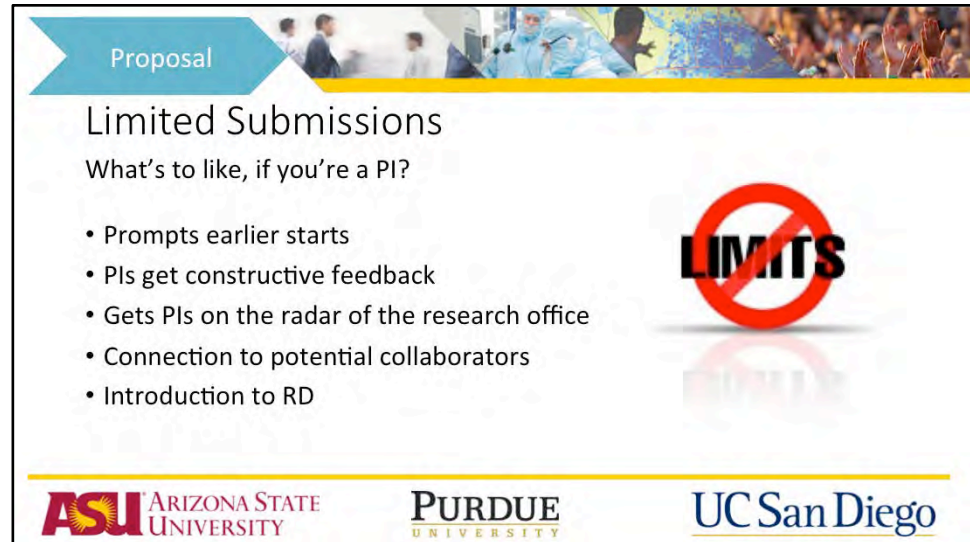
Examples
Three NSF ERC full proposals.
Three NSF SRN pre-proposals.

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Half of the programs in our examples slide (#3) are limited submissions. Limited submissions are often viewed by faculty members as a scourge – another bureaucratic hurdle to clear to before they can submit a proposal to a sponsor.

So, what's to like about sponsor-imposed limits on the number of proposals, if you're a PI?

- **Prompts earlier starts** on proposal development. Especially important for very large proposals, and especially important for those very, very few faculty out there who have a tendency toward procrastination.
- Campus review provides **constructive, actionable feedback** to strengthen proposals, even declined ones which may be revised and resubmitted for internal consideration in the future.
- **Reveals research interests and capabilities of faculty** to those in the research office who are engaged in short- and long-term campus strategic planning of the sort Faye touched on.
- Under some circumstances, the **LS process can connect potential collaborators**.
- **PIs** who might previously have had no interaction with RD personnel **become aware of services offered**.



Proposal

Limited Submissions

What's to like, if you're a PI?

- Prompts earlier starts
- PIs get constructive feedback
- Gets PIs on the radar of the research office
- Connection to potential collaborators
- Introduction to RD

LIMITS

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What's to like about limited submissions, if you're an RD pro?

For the very high value opportunities, from an RD perspective, sponsor-limited programs can be a godsend. Just the thought of one or even two RD pros supporting 10 or 12 NSF STC pre-proposals rather than just 3 could make one's head explode!

Besides limiting the number proposals, other good things about LSs from an RD perspective include:

- + RD office gains **early awareness** of competing teams, and the opportunity to conduct holistic assessment (slide #6)

- + Issues addressed for one team may be relevant to all, e.g. clarifying aspects of the RFP, sharing insights from reports referenced in RFP, results of research on what's been funded, identifying key institutional resources, coordination of institutional cost sharing. When RD investment can serve the needs of more than one team with minimal additional effort, we can achieve RD **economies of scale**.


- Among the challenges encountered can be: **Equitability** in RD assistance, both actual and perceived; the need for **"IP" protection**, i.e. care taken to avoid inappropriate cross-talk by RD pros; and potentially exceeding the capacity of **limited RD resources**. Lynne will go into dealing with these challenges in greater detail.


Proposal

Limited Submissions


What's to like, if you're an RD pro?
Opportunities (+) and challenges (-)

- + Early awareness
- + Economies of scale
- Equitability
- "IP" protection
- Limited RD resources






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First example, the VP of research hand picks a team and/or lead for one or more of the multiple proposals. The perception will be that this team will have additional resources at their disposal. No mention should be made about any other resources, even if they do exist. Instead, the RD professional will need to promote the team in equal measure compared to any other parallel teams. The RD professional should provide equal support to all teams and communicate frequently with leadership. When interacting with the team, refer to qualifications regularly.

Second example, there is only one individual with the right qualifications to lead a proposal effort. This might happen when a junior faculty member is maturing their research portfolio. S/he may be ready and willing to lead the effort, but due to politics (of the institution and the sponsor) or optics (usually from the sponsor side) they do not “paper” well. The team may defer to the more senior individual, undermining the leadership of the enthusiastic individual. RD professionals could be put in the middle of a conflict of interest – serving two masters – with no real product at the end of the day. The recommendation is that more time should be spent with the more junior faculty member to develop strategies for leadership and productively advancing technical scope. Communication should come from the junior faculty, with implicit deference to the senior faculty.

Third example, two or more teams have been asked to coalesce efforts into one. In this case, navigating between teams that were formerly competing can be tricky. If the other teams have coalesced organically, this team will be behind in technical approach and collaboration. The lead of the “forced” team must quickly demonstrate leadership and secure buy in. The RD professional can enable this by frequently updating the team on activities, setting up regular brief meetings for check in, and sharing template documents between all proposers.



Proposal

Self-Imposed Limited Submissions

Scenario

1. Leadership chooses team/lead
2. Qualifications determine lead
3. Overlapping approach

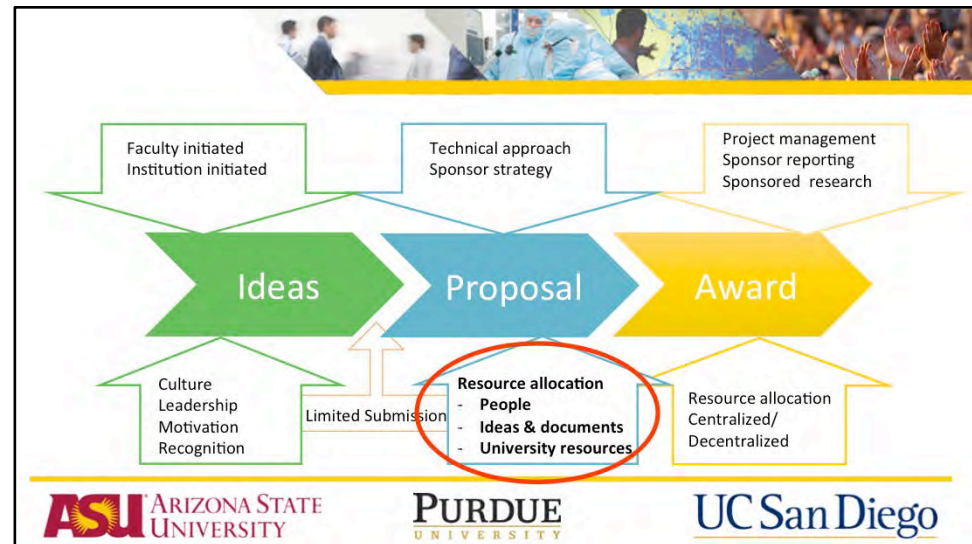
Recommendations:

Step into the power void with strong leadership

Manage the team equitably, but focus on communication with key stakeholders



Now that you have identified your winning teams, how does an RD professional support those teams? Identifying key resources that must be unique and those that can be shared is essential. In addition, you must navigate the politics and personalities of each team. Here are some best practices that we have found to be helpful throughout the development process.



What human resources are available?

- Worst case scenario—1 body, multiple teams...fewer choices on human resources, more choices to be made in terms of allotment of time, energy, and strategic thinking needed to optimize support
- Better scenario—more than one person to support multiple teams; then, questions of the RD professional profile (ie, experience with sponsor, program, and team or RFP requirements come into play) and team profile become more relevant (ie, how much experience working with RD office, leadership experience, experience with this type of proposal or this team...) weighs in on the decision as well as, of course, an estimating and negotiating what 'help' a given team needs, wants, and can reasonably expect.
- Alternative scenario—possibility of pulling in outside resources

What existing and to be developed resources can be used?

- “Just in time” resources (Post-doc mentoring plans, sample letters for collaborators, standard ‘storyline’ outlines, Data Management plans
- Common outlines for timelines, specific RFP outlines, sample biosketch, C of I templates, etc.)

What University resources or relationships do we have or need to be successful?


- Can be related to what we might need to outsource/obtain help (ie, legal issues beyond typical scope, topical areas such as health care, etc.) or to tap

Proposal

Key Questions about Teams, Resources, Players

- What human resources are available?
- What existing and to be developed resources can be used?
- What University resources or relationships do we have or need to be successful?





- Point all teams to resources supported by your school or department; many may not even know to look! i.e., ‘just in time’ support (templates, boilerplate text, and resource descriptions); especially important when there is just one of your (more to be discussed by peg)
- A general outline can be shared, but then each team likely needs one to reflect their own needs. If time allows, revisit general outlines once teams have developed storyline.
- Be organized and identify what ‘new’ documents need to be developed—i.e., outlines of the RFP, checklists, timeline, etc.
- Make sure teams have equal access to key institutional information (i.e., infrastructure descriptions, computer resources, budget/cost share information)
- When working with pre-award teams or across universities, assign ONE PERSON who will be responsible to be in contact with the sponsor for cross-team questions and/or to keep track of updates, new information, FAQs, etc.




One support source—Multiple Teams Supported

- “Just in time” Resources to support ALL faculty
- Timelines for one and all
- “Master” outline tailored per team
- Organize, organize, organize...
- Confirm coordination with budget specialists, cost-share specialists, and other key resources to minimize fatigue
- Assign someone to be key contact with sponsor






What is shared among RD professionals and between them and team leaders/team members. From experience, here are some ideas for what NOT to share.

Budget—teams often want to know how they ‘stack up’ against the other teams...budgets, off limits unless perhaps related to the amount of support the University is willing to provide—hopefully equitable, but not always...one exception may be what budget expectations are for a certain area, like assessment.

It may be tempting to apply a strategy from one team for another (especially if it is perceived to be a more competitive team)—tread with caution. Must identify the difference between ‘standard resource’ for all and a ‘unique win differentiator’ for a team. (i.e., computer resources versus developing tech strategy with people and resources; one great idea for recruitment, needs to stay with that team...also hard if you develop idea with one, should you share with another...only if you make it clear that the same information will be made available to all teams (i.e., information about a particular support program such as minority engineering program, or new resources...did you know Ag Com can make youtube videos for 3k? The Learning Resource Center provides formative assessment as a recharge center...)


Easy to fall into ‘chatting’ about status of teams...and this is one reason why most of us would prefer to not work with more than one team going to the same competition...so we need to often set ground rules about what is ‘off limits’ in ‘water cooler chats’...



While some support might be equitable, some project may align better with University priorities...no good can come from oversharing the amount of support a specific team is getting from departments, colleges or the university...though sometimes we are in the position to advocate for the team and think



Avoiding pitfalls: What NOT to share?

- Budget information
- Specific approaches to sections (i.e. tech transfer, education, outreach, management, data sharing, use of technology)
- Current ‘status’ of team
- University support





When You Just Don't Have the Capacity



- Small and medium RD shops may not have enough:

- Hands
- Time
- Experience

- How do you find, and best use outside help?


Hands

“Hands” are those individuals who may not contribute directly to content, but will support the effort with physical or mental work. This means they can be used across the projects, and generally provide mechanical support.

The NORDP consultant list or the American Medical Writers Association are examples of resources that can be combed through.

Your personal network, LinkedIn, other social media outlets are options for identification of individuals or companies who can be contracted.




Often times, students are ready and willing to work on an as needed basis for very short term work. This can end up being cheaper and more flexible than consulting agreements. Graduate students often like the experience, and find it educational.



Proposal

Outside assistance: Hands

- Editors, Proofreaders, Document Wranglers
 - Can find as consultants
 - Can share across projects
 - Develop your own ‘rolodex’
 - Ask for a graduate student



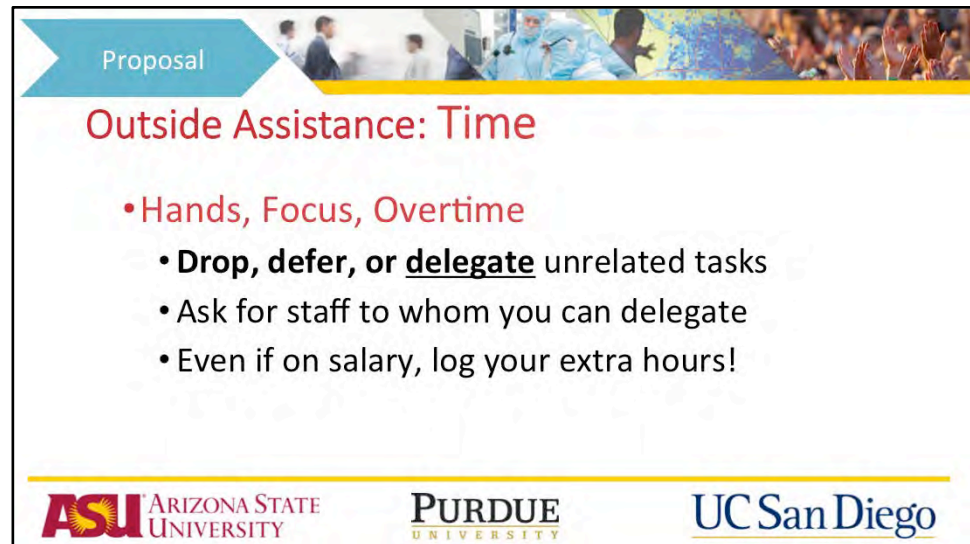
Time

Often times, securing outside assistance is required simply because of the time required to put in multiple large scale proposals. This is especially critical towards the end of a submission.

It's helpful to remember the three D's: drop, defer, or delegate. The outside assistance you need isn't always contractors. Hands can provide some of the time needed, but importantly, sometimes you need the mental space to focus.

You should always be explicit with your supervisor, as early as possible, that unrelated tasks will be delayed, or even dropped. Can they provide staff support for things that can't wait? Talk about this either early in the process, or even before the 'crisis' occurs. Make it part of your relationship and expectations.

Even if you are on salary, log your extra hours and those of others! (It helps you argue for more hands, and should be included in your annual performance review.)



Proposal

Outside Assistance: Time

- Hands, Focus, Overtime
 - **Drop, defer, or delegate** unrelated tasks
 - Ask for staff to whom you can delegate
 - Even if on salary, log your extra hours!

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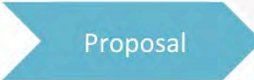
Expertise

When looking for experts on the process, the sponsor, or the subject matter, it's helpful to consider these tips.

Contract with someone with experience with 5-20 submissions of that grant type can give you overall guidance. They could potentially have direct input into the proposal(s), but you will have to manage this conflict closely.




Hiring a consultant who is a former PO knows the agency, and the unspoken criteria, will undoubtedly create a compelling proposal.

A formal project manager frees you up to add value, not chase deadlines. They are schooled in the ways of tracking documents and activity.



Outside Assistance: Expertise

- Subject Matter, RFA/Agency-Related, Project Management
 - “I’ve done a dozen of these.”
 - “I used to run this program at the agency.”
 - “I know how to manage projects.”



Supported by 3 different RD professionals in same office.

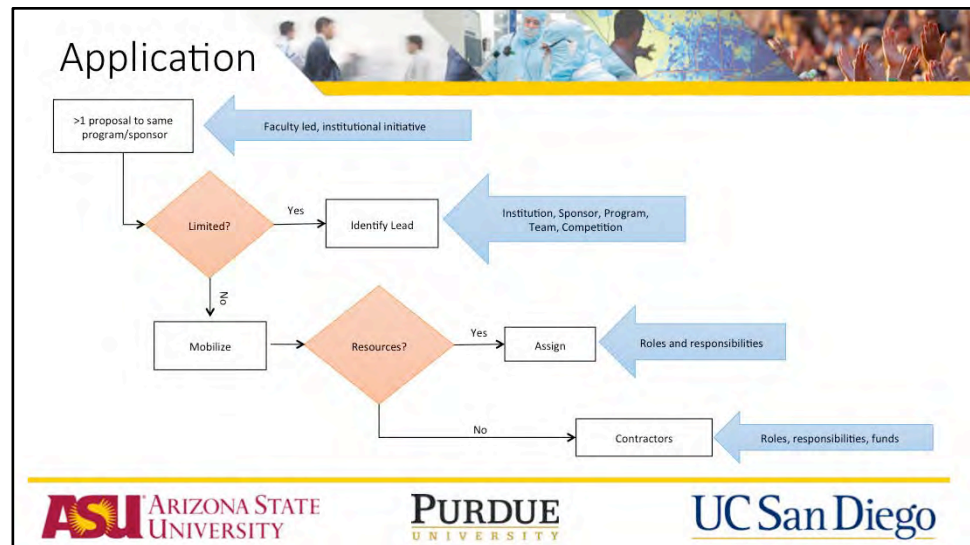
Teams varied in experience of leadership, focus of project, approach to team building



Real world example: NSF ERC full proposal

- Limited submission, institutional support (crown jewel approach)
- Competitive landscape analysis (current award and topics)
- 3 faculty PI's and their teams
- Team 1 – project manager + RA, Team 2 – proposal manager, Team 3 – project and proposal manager
- Single point of contact with sponsor
- External editing, graphics, writing (varied by team)
- Pink & Red Teams completed for 2 teams
- Cost share & institutional support across all teams

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Thank you

